

CONTENTS.

Science a Little Mixed.....	138				
Social Ideal, The.....	146				
Source of the Sun's Heat.....	164				
Stuffed Spiders.....	165				
Snow as a Protection.....	166				
Students, Advice for.....	193				
Soul and Mind in Poetry.....	260				
Soudan, The.....	264				
Shoes and Characters.....	266				
Stomach, How to See the.....	272				
Sightseer, A Phrenological.....	282				
Story Grew, How the—Poetry.....	327				
Seductive Drug, A.....	333				
Seminoles, Curious Customs.....	335				
Spare the Snakes.....	337				
		T.			
		The Right Man in the Right Place—Poetry.....	12		
		Tobacco, Further Testimony on.....	51		
		Two Centuries Hence.....	102		
		True Teachers.....	118		
		Teachers and Students, Two Types.....	164		
		Trouble, Is it Worth the.....	170		
		Texas and San Antonio.....	207		
		Tales Devoid of Truth, Pretty.....	312		
		Tobacco Data, Some.....	342		
		Tennessee Mountains, In the.....	345		
				V.	
				Visitors, Some Distinguished.....	5
				Verities of the Universe, Faith in.....	76
				W.	
				What They Say..... 61, 173, 220, 286, 342	
				Wisdom..... 63, 175, 230, 288, 344	
				Water, Minute Life in the.....	106
				Wood, Signs of.....	112
				Wedded Love—Poetry.....	153
				Whence, What, Where?.....	177
				Women Fade, Why so many.....	328
				Water Poulitices.....	334
				Wood, Steaming and Bending.....	336

ILLUSTRATIONS.

		A.			
		Arnold, Matthew.....	7		
		Amphitheatre at Arles, Exterior.....	252		
		Interior.....	253		
		Aloe, The.....	315		
		Aspasia, the Savant.....	320		
		B.			
		Beecher, Henry Ward.....	21		
		Brinkworth, Arthur Erasmus.....	78		
		C.			
		Coleridge, Lord Chief Justice.....	5		
		Chrysostom.....	16		
		Cicero.....	17		
		Chatham.....	18		
		Chinese Ladies at Home.....	27		
		Comus Offering the Cup.....	40		
		Clove.....	72		
		Cinnamonum.....	73		
		Candona Reptans.....	107		
		Cyclops Quadricornis.....	107		
		D.			
		Demosthenes.....	15		
		Despair.....	189		
		De Brazza, Savorgnan.....	311		
		E.			
		Egypt, Map of.....	265		
		F.			
		Fishing Settlement, Alaska.....	131		
		Fear.....	188		
		Forum, Remains of, Arles.....	254		
		Fig, The.....	314		
		G.			
		Gordon, Major-Gen. Charles G.....	208		
		Gastroscope, The.....	273		
		H.			
		Heart, View of.....	48		
		Hope.....	189		
		I.			
		Irving, Henry.....	9		
		"Is it not so Nominated, etc.?".....	237		
		J.			
		Jealousy.....	191		
		L.			
		Lotus, The.....	316		
		M.			
		Mirabeau.....	19		
		Mozoomdar, Babu.....	67		
		Manutius, Theobaldus.....	83		
		Monosty Quadridentata.....	106		
		Mining Settlement, Alaska.....	130		
		Mario, Signor.....	143		
		Melancholy.....	191		
		Merry.....	192		
		Miller, Captain Mary M.....	257		
		Milne-Edwards, Henri.....	293		
		Mistletoe, The.....	315		
		N.			
		Nutmeg.....	73		
		New Divisions.....	145		
		Neighboring Fews.....	238		
		O.			
		Older Hunting.....	132		
		Old Church of St. Anthony.....	298		
		Old Live-oak, An.....	303		
		P.			
		Priest, A Chinese.....	29		
		Petral, The Stormy.....	37		
		Printing Press, Stereotype.....	90		
		Parker, Theodore.....	123		
		Phillips, Wendell.....	179		
		R.			
		Rotifer Vulgaris.....	106		
		Rage.....	189		
		Reed Mask, or Serpula.....	199		
		Rogers, John.....	235		
		Roman Theatre, Ruins of.....	254		
		S.			
		Stylouchia Pustulata.....	107		
		Sitka, The Town of.....	129		
		Sailing among the Coast Islands (Alaska).....	133		
		Sappho.....	134		
		San José Mission—The Alamo.....	300		
		Spring of the San Pedro.....	301		
		Source of the San Antonio.....	302		
		T.			
		Tea Plant.....	74		
		The Brothers Attack the Sorceress (Comus).....	98		
		Terror.....	188		
		W.			
		Webster, Daniel.....	13		
		Whitfield.....	20		
		Wen Liung.....	26		

Old Series, Vol. 78
Jan., 1884.

KNOW THYSELF

New Series, Vol. 29
NUMBER I.

PHRENOLOGICAL JOURNAL



SCIENCE AND HEALTH

A First-class Monthly Magazine, devoted to the Study of Human Nature in all its Phases.

SUBSCRIPTION TERMS.
1 copy, 1 year. . . . \$2.00
1 copy, 6 months. . . \$1.00
1 copy, 1 month. . . . 20c.
10 copies, 1-year \$15.00

CONTENTS

I. Some Distinguished Visitors.— Lord Coleridge, Matthew Arnold, Henry Irving, Portraits,	5	Notes in Science and Agriculture.— Further Testimony on the Tobacco Habit; Home-made Apparatus; Longevity in the Different States; Factors in Successful Fruit Culture; A Small Motor Wanted; Development of a Garden Plant; The Early Rates of Postage; Spiritualism to be Investigated; What Makes Corn Pop; To Cure Wet Boots; Suggestions on Making Farm Roads,	51
II. The Organical Type of Character. —AN ANALYSIS. Illustrated,	13	Editorial Items.—A Salutatory; Correct- ing the Location; The Centennials; Journalistic Wonders,	54
III. China: ITS AGE, GOVERNMENT, AND SOCIAL CUSTOMS. Illustrated,	25	Answers to Correspondents.—Dominant Propensity; Chewing Gum; Mental Influ- ence; Sluggish Brain; Growth of an Or- gan; Soap in Washing; Memory.—WHAT THEY SAY: Opinion; Against her Will; Source of True Poetry,	60
IV. Some General Observations on AMATIVENESS. No. 4,	32	Personal—Wisdom—Mirth—Library, etc.	
V. The Stormy Petrel. Illustrated,	37		
VI. Comus, Continued,	39		
VII. A Few Strains of Seventeenth CENTURY SONG,	43		
VIII. The Mental Treatment of Disease,	45		
IX. The Heart; ITS STRUCTURE, FUNC- TION, AND DISEASES,	48		
X. How He Died of Starvation,	50		

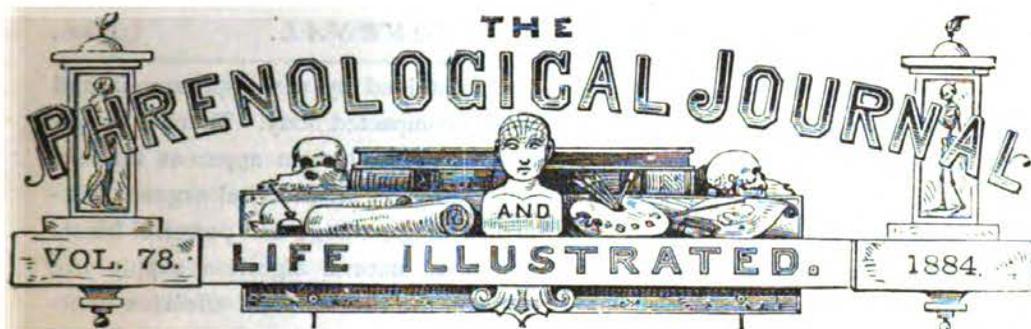
ENTERED AT THE POST-OFFICE AT NEW YORK AS SECOND-CLASS MATTER.
FOWLER & WELLS, Publishers, 763 Broadway, New York.
L. N. FOWLER, *Imperial Buildings, London, England.*

We present below a List of Articles offered as Premiums for Clubs to THE PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH, and would call special attention to the very liberal offers and conditions given. The articles are all new and useful; the very best of their kind. Besides these, to each subscriber is given a splendid Premium.

No. OF PREM.	Names of Articles offered as Premiums for The Phrenological Journal and Science of Health. <i>An Illustrated and Descriptive Circular will be sent on receipt of stamp.</i>	Price.	No. of Subscribers at \$2
1	Gents' Watch, Nickel, Cylinder, Stem-Winder.....	\$ 5 00	7
2	Gents' Watch, Nickel, Lever, Stem-Winder.....	10 00	13
3	Gents' Watch, Silver, Lever, Stem-Winder.....	15 00	20
4	Gents' Watch, Gold Hunting Case, Stem-Winder.....	65 00	100
5	Ladies' Watch, Nickel, Cylinder, Stem-Winder.....	6 00	10
6	Ladies' Watch, Silver, Cylinder, Stem-Winder.....	10 00	14
7	Ladies' Watch, 5 Carat Lever, Stem-Winder.....	21 00	30
8	Ladies' Watch, 14 Carat Lever, Stem-Winder.....	34 00	25
9	One Dozen Silver Plated Tea Spoons.....	6 00	6
10	One-half Dozen Silver Plated Table Spoons.....	6 00	6
11	One Dozen Silver Plated Dessert Spoons.....	10 00	10
12	One Dozen Silver Plated Table Forks.....	12 00	12
13	One Dozen Silver Plated, Solid Steel Knives.....	8 50	9
14	Either a Silver Plated Castor or Butter Dish.....	7 00	7
15	An Elegant Silver Plated Fruit or Cake Basket.....	9 00	9
16	The Amateur's Photographic Outfit.....	12 00	12
17	An Elegant Graphoscope.....	6 00	6
18	Boy's Tool Chest, 45 assorted tools.....	5 00	7
19	Youth's Tool Chest, 61 assorted tools.....	10 00	14
20	Gentleman's Tool Chest, 85 assorted tools.....	22 50	30
21	Family Grind-Stone.....	3 00	4
22	Kidder's Electro Magnetic Machine, No. 4.....	20 00	20
23	Kidder's Electro Magnetic Machine, with Tip cup, No. 5.....	27 00	25
24	Household Microscope.....	5 00	6
25	The Library Microscope.....	10 00	10
26	The Home Learners' Telegraphic Instrument.....	4 50	6
27	The Combination Fruit Press.....	3 00	4
28	Gold Plated Paragon Pencil.....	3 00	3
29	Gold Plated Telescopic Pen and Pencil.....	5 00	5
30	Telescopic or Acromatic Spy-Glass.....	3 50	5
31	An Eight-Day Clock, "Victoria,".....	8 00	8
32	An Alarm Clock, "Joker" Lever.....	6 00	6
33	The Mechanical Organette.....	8 00	8
34	The "Holy Scroll Saw".....	3 00	4
35	The "Demas" Scroll Saw and Lathe.....	8 00	10
36	German Student Lamp.....	4 75	6
37	Gentlemen's Rubber Over-Coat.....	4 00	4
38	Ladies' Rubber Water-Proof Cloak.....	4 00	4
39	Rubber Leggins, (Gents', Ladies' or Misses').....	1 50	2
40	Rubber Water-Bottle, 2 quarts.....	2 00	2
41	Mattson's Rubber Syringe.....	3 00	3
42	Goodyear's Health Lift.....	5 00	5
43	Goodyear's Pocket Gymnasium, Family Set.....	10 00	10
44	Pump Plant Sprinkler.....	1 50	2
45	Set of Portraits for Lecturers.....	40 00	40
46	Set of Phrenological Specimens.....	40 00	40
47	Small Set of Phrenological Specimens.....	10 00	10
48	Set Lambert's Physiological Plates.....	10 00	10
49	Worcester's Unabridged Dictionary.....	10 00	12
50	Student's Set of Phrenological Works, with Bust.....	10 00	8
51	Geo. Combe's Works. Uniform edition, 4 vols.....	5 00	4
52	New Physiognomy; or, Signs of Character.....	5 00	4
53	The Hydropathic Encyclopedia, by R. T. Trall, M. D.....	4 00	4
54	The Family Physician. By Joel Shew, M. D.....	3 00	3
55	Health in the Household; or, Hygienic Cookery.....	2 00	3
56	History of Woman Suffrage, either volume, cloth.....	5 00	5
57	Cowan's Science of a New Life.....	3 00	3
58	Phrenological Busts, Large.....	1 00	2
59	Cast of Human Brain.....	1 00	2
60	Emphatic Diaglott; or, New Testament in Greek and English.....	4 00	4
61	A Set Science of Health, Four Years, bound in muslin.....	12 00	9
62	THE PHRENOLOGICAL JOURNAL, New Series, 13 years, bound.....	45 00	20
63	THE PHRENOLOGICAL JOURNAL, any one year, bound.....	4 00	3
64	A Year's Subscription to the PHRENOLOGICAL JOURNAL.....	2 00	3
65	Library of Our Publications, Agent's Selection.....	5 00	4
66	Library of Our Publications, Agent's Selection.....	10 00	7
67	Library of Our Publications, Agent's Selection.....	25 00	15
68	A Full Written Description of Character from Photographs.....	5 00	4
69	A Scholarship in the American Institute of Phrenology.....	100 00	100

Send in names as fast as received, stating they are on premium account, and all will be placed to your credit, and premium sent when the number is complete. Send 10 cents for Specimens, Prospectuses, Blanks, etc., used in canvassing. Names may be sent from different post-offices if desired. Remit P. O. Orders, or in Registered Letters. Stamps received. Address

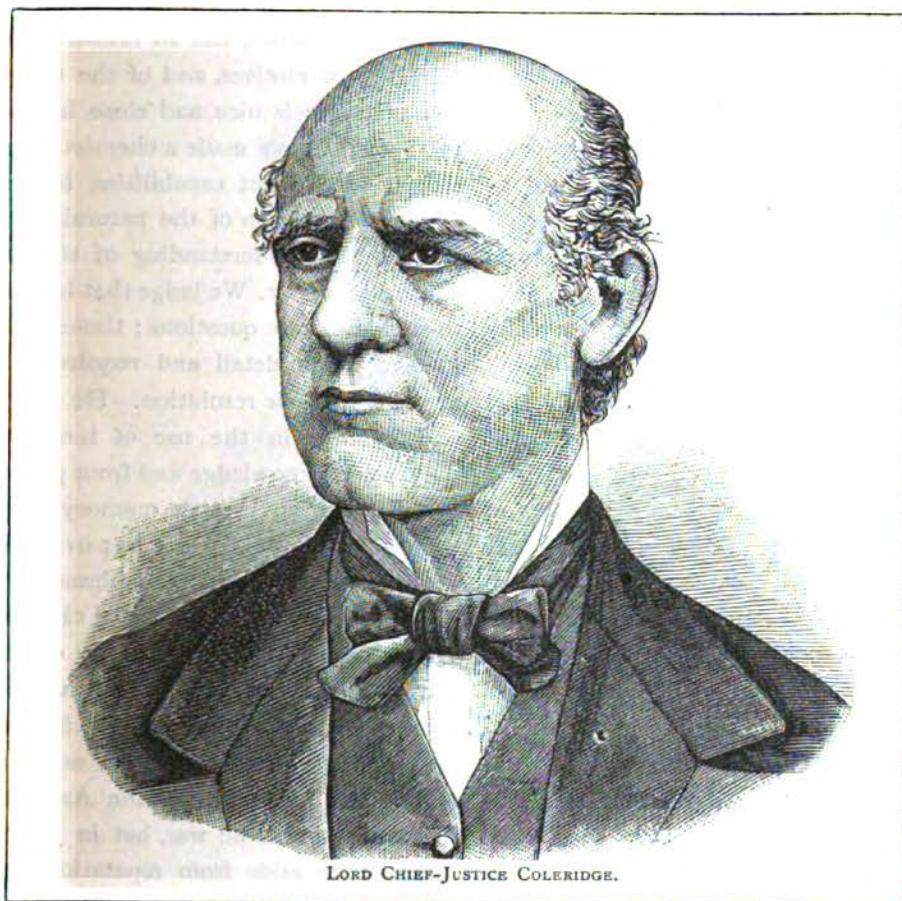
FOWLER & WELLS, Publishers, 753 Broadway, N. Y.



NUMBER 1.]

January, 1884.

[WHOLE No. 541.



LORD CHIEF-JUSTICE COLERIDGE.

SOME DISTINGUISHED VISITORS.

THE JURIST—THE SCHOLAR—THE ACTOR.

IT is so much the fashion for Americans to go abroad when leisure or opportunity permits the voyage across the Atlantic, that we may not be fully alive to the fact that a tide of reciprocity ap-

pears to be setting in on the part of well-to-do Europeans to visit America, and to make themselves personally acquainted with our country and people. Should we examine the passenger list of

a lately arrived steamer at any season, especially in the early autumn, we shall note the names of several persons of local or general prominence in their own land, England, France, or Germany; and it is by no means unusual for a company of titled folk to land at our docks, intent upon making a tour of observation over the wide expanse of our continent. Of the foreigners who come with mercenary intent there seems to be no end, and the majority of them, especially those who have reputation for artistic or literary talent, appear to reap a profitable harvest in their rounds. At the present time the number of foreign "professionals" vying for public notice and the people's money, in New York City alone, is surprisingly large. If one were to glance down the theatrical column of a daily newspaper he would be inclined to think that Europe's best singers and actors were assembled on this side of the great salt pond by a kind of agreement.

Some of England's best specimens of manhood have visited us as friend comes to friend, no motive of pecuniary advantage coloring the sojourn. So Mr. Spencer came, and tarried only too brief a space among us. So Lord Dufferin moved quietly about from city to city, courting no notice, asking no favors.

Lately one of our cousin John's best sons spent a few months in the United States, and made a most agreeable impression by his refined person, manner, and high culture. We allude to the Chief-Justice of England, or Lord Coleridge, as he is commonly styled by virtue of his office. His portrait indicates an organization of fine quality, with the added effects of study and culture. Temperamentally there is a balance which is unusual, the finely-developed brain being

well sustained by a well-preserved and solidly compacted body. There is no excess of tissue, but an apparent fullness of function in all the vital organs. Excellent lungs, a large and powerful heart, and good natural digestion supply the aliment for the free and effective operation of the intellectual powers. He is a prompt, ready, close observer; a keen scrutinizer into the constitution of things; a clear and able judge of men. He reads character off-hand, has an intuitive discernment of motives, and of the true in conduct. He is nice and close in analysis; would have made a chemist or geologist of eminent capabilities, because of his appreciation of the natural world, and his alert understanding of the mechanics of matter. We judge that he loves to study intricate questions; those which involve much detail and require close thought in their resolution. He is clear and definite in the use of language; speaks from knowledge and from personal reflection, not from a memory stored with words merely. He never overloads his speech with words and phrases, but expresses his meaning with the clearness of understanding and the nicety of culture and practice. We do not wonder, with this portrait before us, that its owner found a cordial reception, not only among the gentlemen of the American bar, whose guest he was, but in general society; for aside from reputation as a jurist, he adds the charm of a broad charity and a refined as well as liberal manner.

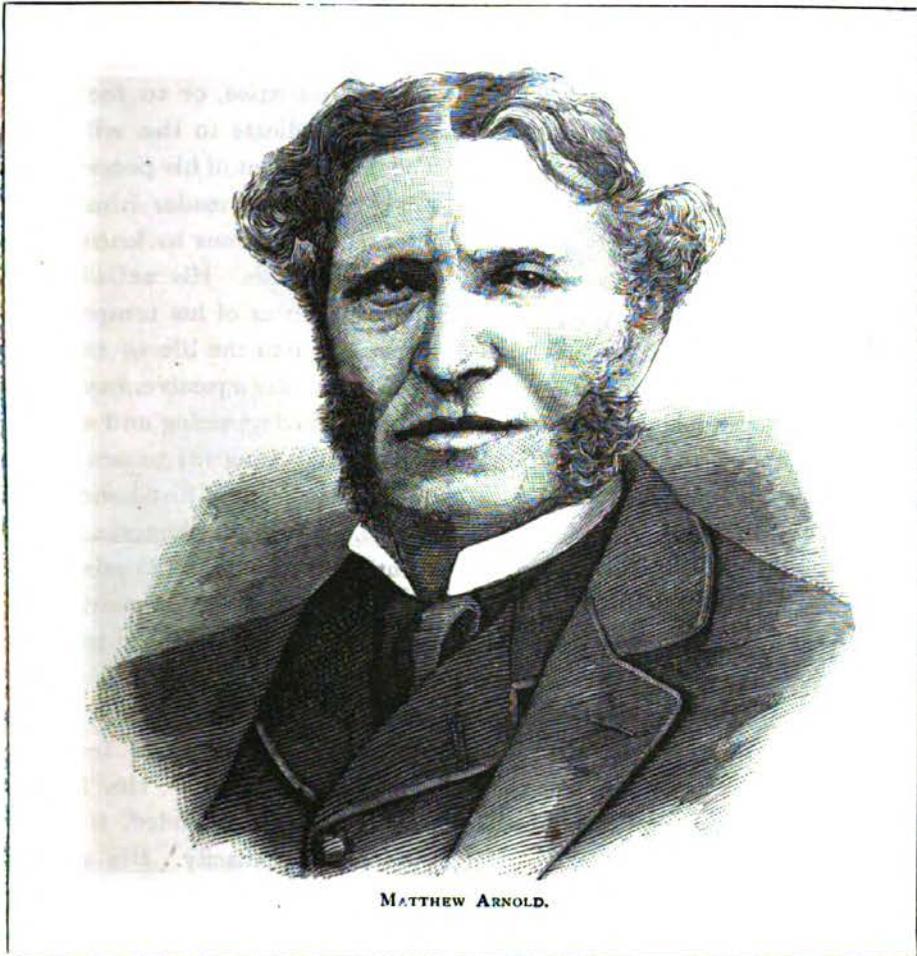
MATTHEW ARNOLD.

Men of power in any field—letters, science, business—are individual; they stand apart from the masses, in their endowments and attainments, and also in their purposes, and while the masses are given

to reverencing custom, fashion, convention, they turn with pleasure to accord honor to the man who has proved himself superior to mere custom and prevalent usage.

In Mr. Arnold we have a man who is thoroughly individual, yet not the one to decry usage ; he believes in growth, cult-

that the culture he teaches is no easy, mechanical thing, but the work of sober, persistent purpose. Among his qualities are those of quick sensibility, aspiration, decision, application, order, invention. He is a nice man in the severe meaning of the term, readily noting and condemning the incongruous, unsuitable, irregu-



MATTHEW ARNOLD.

ure, advancement by stages ; by following a set plan. This plan the average man must adopt if he would rise in mental capability ; if he would be refined in habit and mannerism.

We look at the portrait of Mr. Arnold and find it marked by the evidences of earnest, protracted study ; by the proofs

lar, and out of sorts. His intellectual organs are liberally developed, especially in the central region of the forehead ; so are also the organs in the upper temporal region. Hence he is a natural critic in literature and art, a fastidious delicacy of taste correlating with the sharpness of the logical judgment. He has a high

sense of honor, a keen appreciation of the obligations of respect and courtesy which one should entertain for another ; but the feeling is not due in any great degree to deference to social rule, but rather to the sense of integrity and the spirit of pride and the feeling that merit above all adventitious things should command respect. Mr. Arnold believes in no aristocracy of opinion ; no mere class assumptions, and would not willingly follow a lead that was not shown to be fully justified by circumstances, and then delegated, not assumed. The effect of his studies upon his nature seems to have been other than cheerful and warm—the expression of the face indicating dissatisfaction or disappointment. Society does not respond to its privileges and opportunities of growth intellectually and morally, and Mr. Arnold appears to view it as obstinately perverted, or bound in the shackles of fated incapacity.

HENRY IRVING.

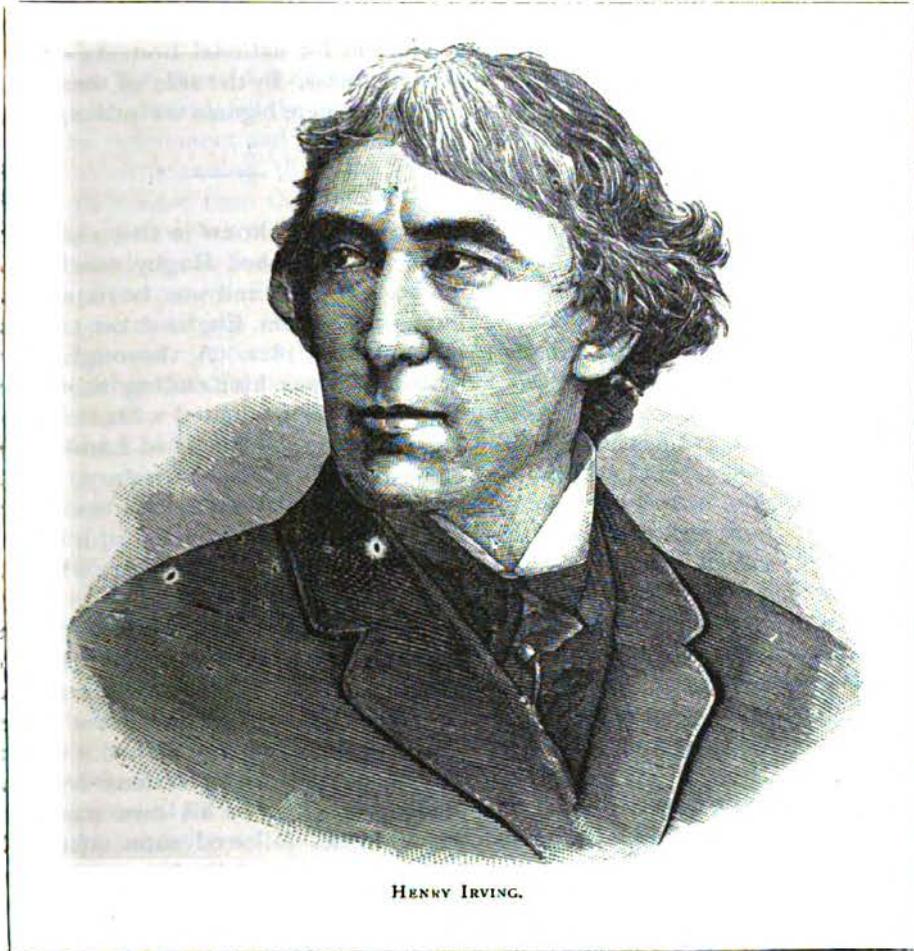
Mr. Irving's face is familiar enough to the denizens of our large cities, as his portraits, like those of all prominent wearers of the buskin, are broadly displayed in the windows of the art and music stores ; and besides, as it is a part of the business of a manager who purposes to bring out a special attraction to have him or her well published in pamphlet and newspaper, Mr. Irving's peculiar endowments of feature have not been neglected in this way. His head and face have an individuality which is striking. The head has a form akin to the Celtic type, being long, prominent in the forehead, strongly developed in the base, and somewhat projecting in the posterior region. At the crown it is well elevated and knobby, intimating a positive, steadfast-

ness of opinion which belongs to the Scottish character. The temperament indicates a robust, enduring physique—a strong appreciation of life for its own sake. He wears but slowly in relations which would soon exhaust or discourage an average man, and can adapt himself to circumstances which make reasonable demands upon his strength with ease, provided there is not too much of routine. He is fond of variety as well as activity, and dislikes restriction, or to feel in any respect subordinate to the will of others. The development of his perceptive faculties is such as to render him hungry for information, desirous to know the world in all its phases. His activity and the other influences of his temperament indispose him to the life of the student ; he can not play a passive, inner part, but must be moving, seeing and knowing for himself, exercising his senses for the acquisition of facts at first-hand. He has, indeed, many of the elements which constitute one curious and inquisitive. Notice the marked development of the organs near the root of the nose—Individuality, Size, Eventuality, Locality. His head is broad and full in the back-head, giving him strong social feelings, and strong love elements. His friends are adhered to and defended, if necessary, with earnest tenacity. His strength of will and the thoroughness of his convictions render him thorough-going and energetic in whatever he undertakes ; hence he is one of the last men to relinquish an effort to which he has once applied his hand. While fond of having his own way, he is scarcely to be regarded as the man to encroach upon the rights of others, because of his practical discernment of the fitness and reason of things, and his belief that liberty of thought and action

should be accorded to men. He is no imitator, although an actor; independence, individuality, frankness, and sincerity are among the most powerful factors in his character.

JOHN DUKE COLERIDGE, later known as Sir John Coleridge, was born in the year

Western Circuit, of which he was for some years leader. In 1855 he was appointed Recorder of Portsmouth, and was created a Queen's Counsel in 1861, being soon afterward nominated a Bencher of the Middle Temple. He was an unsuccessful candidate for the Parliamentary representation of Exeter in August, 1864, but was elected for that city in July, 1865,



HENRY IRVING.

1821, and educated at Eton and Balliol College, Oxford, where he obtained a scholarship, and was graduated in 1842. In 1846 he received his Master's degree, up to which year he had been a Fellow of Exeter College. He was admitted to practice at the Bar in the Middle Temple, November 6, 1846, and went on the

and continued to represent it until November, 1873.

In December, 1868, on the formation of Mr. Gladstone's government, he was appointed to fill the office of Solicitor-General, when he received the honor of knighthood, and in November, 1871, on Sir Robert Collier being appointed to a

Judgeship in the Judicial Department of the Privy Council, Sir John Coleridge was appointed to succeed him as Attorney-General. On the retirement of Lord Romilly, in 1873, from the Mastership of the Rolls, Sir John, as Attorney-General, though a member of the Common Law Bar, received the first offer of that appointment, but after mature deliberation declined it. Soon afterward, however, the death of Sir William Bovill left the Chief-Justiceship of the Court of Common Pleas at the disposal of the Government, and this high office was at once conferred upon Sir John Coleridge, who was sworn in as Lord Chief-Justice November 19, 1873. In the following month he was raised to the peerage, with the title of Baron Coleridge of Ottery St. Mary. The position he holds is next in legal dignity to that of Lord Chancellor.

Lord Coleridge is considered one of the foremost speakers on the English bench; in readiness, especially, he probably has no superior. The many addresses which he made while in this country were almost entirely off-hand, yet in every case admirably suited the occasion. One instance of his promptness in using an opportunity to present an instructive lesson to an educated audience, was that when at a banquet one of the speakers boasted of the "bigness" of the United States in comparing it with Great Britain. In his turn the Chief-Justice then gracefully and in few words pointed out the true nobility of a nation:

"Territorial bigness does not count for much in the estimate of national greatness. Bigness is not largeness. The extent of the republic is too often dwelt upon by orators as something not only phenomenal, but highly creditable to the citizens of the republic. What of it? asks the visitor. You didn't make it. The territorial expanse of this country, vast though it may be, does not add one whit to its national greatness, unless it shall appear that the great republic is great in the qualities that elevate and dignify a nation and command the respect of mankind. A small State, poor and yet noble,

may win a name for national heroism which another, rich in acres and destitute of manhood, may never hope to gain. To own many millions of acres of land, to build thousands of miles of railroad, and to control the commerce of vast lands and rivers, may be the result of a series of lucky accidents. None of these constitute a State. But to maintain among the nations of the earth a lofty patriotism, a high order of manhood, a good government, and an unblemished reputation for national honesty—this is real greatness. By the side of these characteristics mere bigness dwindles into insignificance."

MATTHEW ARNOLD is the eldest son of the distinguished Rugby teacher, Dr. Thomas Arnold, and was born at Laleham, near Staines, England, on the 24th of December, 1822. A thorough course of training was his; ending at Oxford, where he was graduated with honors in 1844. In 1847 the late Lord Landsdowne made him his private secretary, and he acted in that capacity until his marriage in 1851, when he was appointed a Lay Inspector of Schools—a position which he still holds.

In 1848 he published a volume of poems, entitled "Strayed Reveller, and other Poems." In 1853 "Empedocles on Etna, and other Poems." These were signed "A," but in 1854 he published a volume of new pieces with selections from his previous writings in his own name. A second series followed soon after. In 1857 he was elected Professor of Poetry at Oxford, a chair which he held for ten years—in the meantime acting in important capacities for the British Government in relation to measures for the improvement of popular education.

Mr. Arnold has been an industrious contributor to the literature of his country. "The Essays on Criticism," which are conspicuous examples of his scholarship and analytical skill, were published in 1865, being a collection of some of his prose contributions to the periodicals.

Among his later works are "Lectures on the Study of Celtic Literature," which appeared in 1868; "St. Paul and Protestantism," 1870; "Literature and Dogma," 1873; "Last Essays on Church and Religion," 1877. He has been the recipient of royal honors, the King of Italy conferring several years since the Order of Commander of the Crown of Italy, in acknowledgment of Mr. Arnold's care of the young Duke of Geneva, who lived in his care while pursuing a course of study in England.

As a poet Mr. Arnold does not captivate the public mind, for the reason perhaps of the refinement and polish of his verses; notwithstanding that, his best efforts show "more than the mere cultivated taste of the man of letters and the practiced hand of the *made* poet." It is in the department of literary criticism that he appears to the best advantage, organization and opportunity supplying unusual facilities in that behalf. A careful writer says :

"The secret of his influence is not hard to discover. A severe censor, a biting satirist, he has nevertheless been in general accord with the intellectual movement of the time, though almost always a little in advance of it. That culture which is essential to the perfect and harmonious life, that culture which consists not in sunflowers and blue china, but in 'knowing the best that has been thought and said in the world,' is a want of which the age is profoundly conscious; and it is partly because of this consciousness that the literary activity of our generation shows such a decided tendency toward critical rather than creative work. Mr. Arnold has not only been an able defender of the dignity and importance of criticism, but he is himself one of the foremost masters of the art. There is no Englishman who has conceived a more exalted idea of the functions of the critic, or kept more faithfully in view his own definition of the business of the critical powers 'in all branches of knowledge, theology, philosophy, history, art, science, to see the object as in itself it really is,'

or exercised that power with a more fascinating clearness, a more elegant and charming urbanity."

JOHN HENRY BRODRIB IRVING was born at Keinton, near Glastonbury, February 6, 1838, and obtained his education at the school of Dr. Pinches, London. There he took part in school recitations and little Christmas plays, and showed not a little aptitude for dramatic representation. From school he went into a counting-house, but his inclinations were so strong for the stage that he devoted himself to the study of elocution under an actor for the purpose of preparing himself to play; and when about eighteen he made his first appearance at the Sunderland Theater. He appears to have been so overcome by nervous excitement that he could not perform his part on this occasion, and rushed from the scene. In his next venture he was more successful, and later obtained an engagement which continued for over two years. This was in Edinburgh. Anxious to obtain an engagement in London, which would bring him fairly before the public, he gave readings from the plays of "Virginius" and "The Lady of Lyons," which attracted the attention of well-known critics, and secured a part for him in the Princess Theater. From 1860 to the close of 1865 he played in different cities, remaining, however, for over three years in Manchester, where he was connected with the Theater Royal.

A very successful impersonation of his in "Hunted Down" led to Mr. Irving's engagement at the St. James, London, where he became identified with the successful impersonation of villainy in its different forms, and also proved himself a comedian of no mean powers.

His reputation was now well established, so that he was in steady demand for city or provincial engagements. With increased experience he essayed higher parts, until his representation of "Hamlet" in the autumn of 1874, at the Lyceum, produced a marked sensation among theater-goers—and it was conceded by the

majority of the English critics that Mr. Irving had won a place in the front rank of Shakespearean delineators.

Since that time Mr. Irving has devoted himself chiefly to the rendering of the plays of the great dramatist; turning aside to simpler or more modern compositions as occasion or the public demand for variety may require.

Critical opinion is inclined to impute much of Mr. Irving's popularity to his peculiar mannerisms and the perfection of the material make-up of the plays which he places upon the stage. He is confessedly a master of melodramatic art, and in "The Bells," a powerful drama, adapted from the novel entitled "The Polish Jew," his skill in the portrayal of strong situations is well illustrated. A contributor to *Harper's Weekly* says:

"Matthias, in 'The Bells,' was, I believe, the first character in which he exerted over a London audience the marvelous fascination springing from that subtle something of infinite value known as personal magnetism. Since then there has existed between him and the Lyceum audiences an *entente cordiale* probably unprecedented in the annals of the drama.

It has made the elaborate Shakespearean revivals and fine setting of other plays possible. The success of 'The Bells' was immediate and overwhelming. Such a weird, wild portrayal of horror had never been witnessed on the London stage as Mr. Irving's portrayal of the vision-haunted murderer Matthias. The element of terror is brought out in bolder relief by his capital assumption of unconcern in such moments as when he argues with Christian that his efforts to discover the murderer of the Polish Jew will prove futile. Mr. Lewis' adaptation of Erckmann-Chatrian's 'Le Juif Polonais' is a one-character play. In the hands of Henry Irving its strength lies in this one-character feature. No greater evidence of his power as a melodramatic actor is needed. A bit of by-play may be mentioned to show the care with which he elaborates his characters, and how artistically the points thus made harmonize with his conception of the character as a whole. As Matthias takes Annette's dowry out of his money-bag he carelessly puts the string around his neck; a moment later he shivers with terror and snatches it off."

EDITOR.

THE RIGHT MAN IN THE RIGHT PLACE.

How many the gifts of our God !
 But none better—let who can refute—
 Than the gift, which so few men possess—
 The right man in the right place to put !
 Oh, the sorrowful sighing !
 Oh, the mourning and crying !
 There must be a life that is after this !
 A life to make up for this want of bliss ;
 To make up for the woe and the weariness !
 See him, with the true artist-soul,
 Who is digging out stones from the earth !
 And the one who should sing hymns of praise,
 Who is blowing up bubbles for mirth !
 And him, with the head of a chief,
 And with shoulders of broad, manly shape,
 Who has taken what seemed t' us his lot,
 And is listlessly measuring tape !
 There's one in a governor's seat ;
 From his weakness what can we expect ?

While he's fickle and wavering himself,
 Can he ever command your respect ?
 And see when sweet Violet wilts,
 On a bare, barren rock she is placed ;
 And she yearns for a cool, quiet nook,
 While she shrinks from the sun's fierce embrace !
 One look at that gorgeous flower
 Which is fading away in the shade,
 With her face ever turned to the sun,
 As she pines for the bright open glade ;
 See her with a Sibyl's broad brow !
 Slender form, and her gifts, all of God !
 He hath shown His *destiny* in His works ;
 Yet she sinks 'neath the weight of her load.
 Oh, the sorrowful sighing !
 Oh, the mourning and crying !
 There must be a life that is after this !
 A life to make up for this want of bliss ;
 To make up for the woe and the weariness.

GRACE H. HOBBS.



DANIEL WEBSTER.

THE ORATORICAL TYPE OF CHARACTER—AN ANALYSIS.

IN previous articles I laid down as a basis for the study of character the principle that man ought to be studied as he presents himself to us, and I also pointed out that the best way to carry out this principle was to consider man psychologically, physiologically, and physiognomically. In pursuance of this I have given a very brief outline of the genetic powers in man, which singly and in combination form the basis of types of character. But the reader, from this short abstract, can form no adequate conception of the fullness, practicality, and scientific accuracy of this method of investigating human character. I will, however, select one prominent type for special treatment, hoping it may convey some notion of how well this system of studying man can fulfill the necessary conditions of scientific accuracy.

Let us take an orator as he presents himself before an audience, we forming members of that audience, and endeavor

to study him as he appears to us. Our speaker is a popular one, an orator of a national or world-wide reputation; this is the best model for study. As he steps upon the platform, the confused murmur of whispering pleasantries subsides, and all eyes are directed toward this one man. What a terrible situation for a human being; ten thousand faces, all glowing with various passions, emotions, and thoughts, are turned toward him. Innumerable eyes are flashing a steady magnetic flame into his eyes. It is no wonder that the orator seems to tremble; his first sentences are husky, inarticulate, and tremulous. A strange, excitable dread takes possession of his whole being, and his body recoils back, as if wishing to escape from this vast army of men and women. What shall he do? Retire in disgrace, or attempt and fail? How can he, a man possessing the same number of faculties, intellectual, emotional, and animal, as each individual before him,

ever address a great assembly of men and women, all burning with passions, some the very opposite to those which he wishes to kindle? It is a dreadful position for any mortal. Very few have been successful. You can count great men in poetry, philosophy, science, and other departments, and fill a book with them, but great popular orators can be told off on your ten fingers. To face an audience of men and women, and sway them by the power of eloquent speech for an hour or two, is a triumph far greater than the conquest of a kingdom.

The few who have accomplished this glorious victory are found scattered on the pages of history, and it would be an easy task for the memory to enumerate them. But let us see, our orator is one of the successful ones. He passes the Rubicon. That excitability which almost overpowered his intellect, now becomes the electric fire by which he will send his message into the palpitating hearts of the multitude of men and women before him. Those eyes and faces which seemed at first so dreadful, so threatening in their aspect, will become the source of his greatest power. As each gleam of pathos, sublimity, wit, and burning logic lights up his eyes, plays on his countenance, and radiates from every atom of his body, so does a responsive flame glow on the faces of the men and women before him. Thus sympathy is awakened, a bond of communication is established, and that which the orator at first feared, has become the momentum power of his success.

As we listen to him, we feel indescribable thrills run through and through our frames. Sometimes they pass along the heart like an icy hand, sometimes they awaken to fury irresistible, and the cry is, "Grasp the shield, draw the sword"; "Let us fight for the principles which the speaker advocates"; "Let us march against Philip!" Then, again, we are entranced, charmed, and held spell-bound by some beautiful, mysterious, or wonderful illustration or description. Perhaps wit plays with all the irresistible

charm of humor, mirth, and drollery; and laughter and applause follow each other in rapid succession. And the more we respond to these emotions, stimulated by the orator, the more powerful and higher his flights of eloquence become.

Now, the question for us to solve is, upon what does all this depend? There is evidently a current of sympathy between the audience and the speaker. What is the law of this current, and the conditions of its manifestation? It depends upon the three conditions which I have mentioned as an introduction to this subject. They are psychological, physiological, and physiognomical.

THE PSYCHOLOGICAL.

This embraces all the qualities of mind necessary to an orator. In the old scheme of metaphysical analysis we would probably find the essentials of oratory enumerated as a gift of the imagination, a copious supply of words acquired by habits of study, the capacity to arrange in an orderly way the various heads of a speech. Their analysis would consist, at any rate, of the enumeration of some general powers; but few specific elements would be mentioned, and no attempt would be made to connect them with brain or body. In our analysis, we shall attempt to specify the psychological conditions necessary to oratory. There are individual differences in orators, but there are general principles which are common to all. First, a bond of sympathy must be established between the speaker and the listener in order that the orator may accomplish his purpose, which is the chief end of oratory.

Second, special endowment; there is a genius for oratory as there is for poetry, philosophy, and science. The law of sympathy with respect to this principle is relative; its activity depends upon the constitutional endowment of the speaker and the listener. If the orator and his audience have a number of faculties in common, there will be a psychological current of sympathy set in motion whenever these elements are awakened in the

speaker and the listener. Now, this current will be more powerful and overwhelming in its sweep, the more numerous the constitutional elements aroused, and according to the depth and brilliancy of the ideas and phraseology which appeal to them. This is why one kind of oratory has a powerful effect upon some, and another kind has an equal effect upon others. The national or popular orator has the power to awaken the greatest number of constitutional elements, which are possessed in common, or to intensify a few of the more energetic and elevated with frenzied passion. Orators who could sway all classes of people have been few. The great popular orators, like Demosthenes and Cicero in ancient, and Chatham, Whitefield, and Chalmers in modern times, are not numerous. The reason is partly psychological and partly circumstantial. There must be genius, and there must be opportunity. All great orators have appeared in great crises of the world's history; there must be an outlet for brilliant oratorical bursts commensurate with their power and splendor.

The psychological gifts are these: The highest success in oratory depends upon rare constitutional endowments; large mental powers in the highest state of activity; a vigorous endowment of the emotional nature; a poetic imagination, and a command of choice phraseology. Large mental powers depend upon the size, quality, texture, and health of the brain. All the organs must not only be large, but they must be in a passional state of activity. No metaphysical coolness, no abstract logic, no dry formulas, and commonplace phraseology can thrill an audience. Metaphysical reasoning must become concrete, logic must shine in the volcanic flames of the emotions,

and words must be instinct with life and power.

There are two ways of gaining truth; through metaphysical and intricate logical processes, or by poetic and imaginative intuition. Great philosophers like Kant and Aristotle reached truth by the former; eminent poets like Shakespeare and Milton, by the latter process. Truth is just as true discovered by Shakespeare as by Kant. But truth in the hands of Shakespeare is more persuasive, because dipped in the fountains from whence well up the life-springs of action, the fountains of emotion and imagination.



DEMOSTHENES.

The orator should present truth more after the manner of the poet than the metaphysician.

We have said that the orator should, if possible, possess all the faculties in the human constitution in a high state of power. It is right here that oratory divides off into branches; here is where the streams separate, and different styles of oratory become manifest. Some orators possess a few faculties in a state of great power and activity, as compared with other elements in their make-up, and this leads to a peculiar style of oratory. For example, an orator may be all

emotional; the whole of his discourse may be addressed to the feelings, pure and simple; he will wield great power over those who have a similar endowment; and in a great metropolis will draw around him a large audience, but he can never be a national orator; he never can be like Chalmers, Demosthenes, or Lord Chatham. This emotional class of orators may divide again into as many branches as there are different elementary powers manifesting themselves in their oratory. Thus, for example, an orator under the influence of the organ of Benevolence will have a sympathetic

state of development of the feelings. The endeavor of all such is to stimulate feeling which is only skin deep in their nature; hence they express themselves in howls and exclamations. This kind of oratory has been called the oratory of the feelings, but it is no such thing. It is rather a superficial show of the genuine article. Feelings which are deep and powerfully active, are passionate, not sentimental; they express themselves in real pictures, rather than empty expletives. Wrapped around the gleaming trelliswork of the imagination, they glow with all the luxuriance of reality.



CHRYSOSTOM.

style of delivery. His illustrations will be tinged more or less with pathos. If we add wit, sublimity, and ideality, then we will have an orator like John B. Gough, who thrills his audience with stories of pathos, humor, and heroism. Add to these, other powers, and you make an approach to the model orator. The mere effusions, expletives, and exclamations such as are sometimes heard among itinerant preachers, ought not to be dignified with the name of oratory. They are not bursts of genuine passion; they are mere sentimentality, the product, not of a highly emotional nature, but of a low

It would be a long task to enumerate all the styles of oratory. It is sufficient to remember that psychological difference leads to variety of style. While we assert that every faculty of the human constitution can be skillfully employed in oratory, there are some faculties without which no one can be a great orator. There must be the gift of speech, the organ of Language, as the phrenologists call it. Men have indeed influenced an audience who were not fluent in speech; but we do not call that eloquence. Their power was not in their oratory, but probably in the truth or efficacy of their state-

ment, or in the importance of the cause for which they spoke. Genuine oratory demands a skillful use of choice words, harmonious in sound and radiant with feeling. Strong, pointed phraseology, interspersed with stately periods, are a powerful auxiliary in arousing men to action. All the popular orators have possessed this power. Their diction is marvelous for sweetness, music, and grandeur. A good endowment of language, then, is essential to an orator.

Imagination and originality of conception are the next psychological requisites. The metaphysical school simply mentions

Imagination in their analysis as a general power; it is therefore of value only so far as it is a convenient term easy of use; but if we take the best classification of the mind which has as yet appeared, that of Phrenology, we will have a more satisfactory and practical definition of Imagination. Imagination, pure and simple, is the ability to call up an image or representation of an object, idea, or event. It is that faculty which makes old truths live over again, which develops and clothes with living beauty the dry bones of intellectual conceptions. But imagination is not one and indivisible; it is not a primitive faculty, it is a general conception like memory, emotion, etc. Imagination, in a general sense, is a property of every faculty in the human mind. Benevolence, for instance, in a state of activity can conceive of suffering so as to inspire the intellect to supply materials for a pathetic story. So Veneration, Hope, Spirituality, Amateness, all have their imaginative side, and according to the development and passional activity of these organs will be the intensity of the imaginative picture which they present. Such is imagination in general; but the higher functions of imagination—

the sublime and beautiful—depend upon the passional activity of sublimity and ideality. Ideality gives that exquisite feeling of harmony and proportion; it detects and rejoices in the beautiful. An indescribable thrill of pleasure seems to radiate from all artistic works of perfection. Ideality is, therefore, an element in perfection of diction and beauty of ideas. But the most important organ in high and elevated oratory is Sublimity. All popular orators have possessed it well developed. It seems almost absolutely necessary to popular oratory. When we conceive of the magnitude of the oc-

casian when an orator must address thousands of men and women; when anything commonplace would be unsuitable for such a vast assembly; when, if the speaker wishes to preserve his own identity, his power over so vast and threatening a multitude, his language, his phraseology, his ideas must be correspondingly magnificent—Sublimity clothes all with power. Images and illustrations subjected to its influence burn with volcanic intensity. It has power to lift up and sway an audience as no other sentiment or intellectual faculty can. Besides imparting grandeur and magnitude to all



CICERO.

the emotional nature, it draws the intellectual conceptions within its furnace and imparts to them a giant strength. Hence there have been orators who, in the utterance of what would have been otherwise cool intellectual statements, have seemed to swell with irresistible power. This was because the conceptions were so heightened in magnitude and power by sublimity that they lost for the present their commonplace intellectuality.

If we wish to prove this, we have but to take up the speeches of Demosthenes and Chatham, and the sermons of the great Scottish preacher, Thomas Chalmers.

Reason in Demosthenes is not commonplace; the strong elements are seized upon and sublimity exaggerates their proportions. It is the faculty which delights in strong contrasts. The Psalms of David and the book of Job, and prophets Isaiah, Ezekiel, and the book of Revelation, are examples. It abounds in Shakespeare, Homer, and Milton. It forms one-third of prose, two-thirds of poetry, and four-fifths of genuine oratory. I have no space for illustration, but here is a com-

Rome—one vast volcano drained of all her fire and life; the lurid light of her dying ashes served only to reveal the vile filth spread in heaps around; she grows detested in the sight of nations; her doom is drawing nigh; the cold hand of death is on her."

Now, an equivalent statement of this by the intellectual faculties would be a tame affair. It would be simply that Rome, because of her corruptions of morals and general political disorganiza-



parison which has rooted and blossomed in the fertile soil of sublimity. The orator is speaking of the corruptions of the Roman Empire, and is seeking for a comparison by which to represent the death of her national life, the effect of those corruptions. He compares the utter desolation of Roman nationality to an extinct volcano.

"My friends, have you ever stood above the crater of a volcano when she has spouted forth her burning lava and gazed far down into her hissing womb, void of all save murky darkness? Such was

tion, lost her national spirit and so fell a prey to her enemies. But how faint the impression made upon an audience by the latter expression.

I have said that Sublimity was one of the most useful faculties in oratory, inasmuch as it made even logic and metaphysics live in a dazzling atmosphere. Chalmers' astronomical sermons are illustrative of this. Probably no other orator ever submitted such deep intellectual thought to a mixed audience as Thomas Chalmers. Yet he was listened to with rapt attention because of the enthusiasm

of his delivery and the magnitude of his expressions. In his portrait the organs of Sublimity and Ideality are both large. These organs, Ideality and Sublimity, prompt the intellect to express ideas concretely, not abstractly. This is a high element in oratory. There never has been a great orator, and probably there never can be one, who does not manifest this quality. All the great preachers have the faculty of picture-painting of ideas more or less. The tameness of the ordinary preacher is the result in part of a lack of this quality of the imagination. They gather a few commonplace thoughts and string them together by means of stale phraseology. The whole may have the appearance of condensed thought, but it is old thought in an old garb. Sunday after Sunday people are bored with this stuff, and there is no relief. The clergyman they had before preached in the same way, and should they get a new clergyman he would probably do the same thing; so there is no escape except to cut prayers as often as possible.

The absence of imagination and originality in a minister is almost fatal to his success as a preacher, because the substantial facts of Christianity are old and church people have heard them over and over again. What is wanted in such circumstances is to produce truth in a new way, in new phraseology, with new illustrations, and new turns of thought, and to make it glow with the light of the imagination.

I will just quote one extract from the greatest orator since Demosthenes, Lord Chatham, as an illustration of the difference between commonplace statement and that produced by the imagination. "The poorest man may, in his cottage, bid defiance to all the forces of the crown. It may be frail—its roof may shake—the wind may blow through it—the storm may

enter—the rain may enter—but the king of England can not enter!—all his forces dare not cross the threshold of the ruined tenement."

The common intellectual statement would be simply that the king of England has no power to enter a peasant's cottage without that peasant's permission. The latter, some would regard as strong because more brief, and the speaker would get credit for condensation, but is it not a poor, insipid statement, compared with the pathos and sublimity of that of England's greatest orator?

The other qualification, originality, is partly a product of the emotional nat-



ure and partly an intellectual endowment. The capacity to grasp truth in an original way, to clothe it with new phraseology and turns of thought, is an indication of true genius. A speaker may be influential who collects and gathers facts and presents them before an audience as matters of information without original reflection, but he never can wield the destinies of nations, or systems of truth, or the fate of great movements. It is great orators like O'Connell, Chatham, Fox, Mirabeau, and Luther, who can shake thrones, demolish old abuses, and build up on their ruins a new and more noble edifice, burning with the original fire of their own age. I have said that

the power of originality was partly a quality of intellect and partly a product of the emotional nature. The intellectual faculty most concerned is Comparison, whose function is to detect similarities in ideas and things. Old truths become new by placing them in new relations, or by discovering their similarity to other truths. In doing this there is a process of comparison going on, an object is presented by the observation, and the faculty of Comparison detects a likeness or common resemblance between that object and some other object or idea. This flash of identification is an element in originality. All great inventors and scien-



tific investigators have made their discoveries in this way. It was by a stroke of the identifying faculty that Newton saw the law of gravitation in the falling apple, and that Watt beheld the steam engine in the white coils of the vapor issuing from the mouth of the kettle.

Comparison extends through every department of knowledge, in botany, chemistry, philosophy, and poetry. In oratory it is almost indispensable. The Saviour of mankind, the greatest orator the world has ever seen, seldom spoke without a comparison. "The kingdom of heaven is like a grain of mustard seed"; "It is easier for a camel to enter the eye of a needle, than for a rich man to enter the

kingdom of heaven"; The prodigal son, the man travelling into a far country, the foolish virgins and their oilless lamps, and many other fetches of similarity testify to the usefulness of comparison in oratory. If we examine the great sermons of distinguished preachers, we will find them full of metaphors, similes, and fetches of the identifying faculty. Take, for instance, Rev. Phillips Brooks, the great Boston preacher, and you will find examples of this power. His famous sermon, "The Candle of the Lord," is a stretch of the identifying faculty from beginning to end. Man under the image of a candle is presented in all his relations to God. The power of similarity may express itself in simple illustrations and comparisons, or it may by the aid of the other faculties, especially sublimity and ideality, carry out a grand image under which truth gleams in all its relationships. Brooks' sermon just spoken of is an example of this kind. The image of a candle runs through the whole discourse, supported by beauty and grandeur of statement. It is one of those rare sermons which will rank its author among the greatest of orators.

I can not help remarking in passing that Phillips Brooks is a good illustration of all I have been inculcating under this subject, and as he is within the reach of investigation, it may be well to mention some of his characteristics as an orator. He has a large head and strong physical development, but of that I will speak under the division of the physiological side of man. The most perceptible qualities in his oratory are fervor, grandeur, and vivacity. His fervor springs from his active brain and emotional temperament. The grandeur, dignity, and overwhelming impressiveness of his thoughts arise from the condition we spoke of before; they have budded and fruit-blown

in the rich soil of sublimity. His vivacity springs from the intense excitability of his whole constitution; every faculty is not only active, but alive with passion. He does not merely think truth, he feels it. This is because he has all the psychological requisites enumerated in this essay. He has also well-developed physiological and physiognomical characteristics, but of these we will speak hereafter.

ament. There should be an equal balance of the temperaments; no one should be extremely weak, but if any predominate it should be the vital. The enormous strain of excitability, the intense mental effort, the dread of failure, the almost superhuman courage necessary to face a sea of faces, the tremendous vocal exertions, all eat and drink up the vital fluids of life.



REV. HENRY WARD BEECHER.

PHYSIOLOGICAL SIDE.

We come now to examine our model orator from the physiological side. First, then, there is a temperament of body more favorable to oratory than any other. The vital-mental temperament is the best. I do not maintain that all orators have had this temperament; there are abundant examples of the mental-motive, motive-mental, and vital-motive. But the highest flights of oratory are compatible with the vital-mental temper-

The vital constitution is naturally excitable—it is the genuine emotional nature; it can bear heavy strains of passionate feeling, because passion is its food and emotion its pastime. The vital temperament is characterized by great lung power and good digestion. There is an abundance of good hard flesh, and the blood is full, vigorous, and active. The great breathing power which comes from the large development of the organs of respiration and inspiration is highly es-

sential to vocal delivery. The vital temperament is vivacious; every member of the body is active, every movement of the hands, eyes, and face, is expressive. It is, in short, the Elocution temperament. Since all the vital fluids are vigorous and highly charged with the elixir of life, there is a constant stream of magnetism passing from this temperament through the voice, eye, and gesticulations. This temperament, therefore, gives an orator a mysterious power over his audience. What is called magnetism is merely a current of sympathetic feeling developed between the speaker and the audience. The orator who can awaken emotion in himself can awaken similar emotion in the listener, if the means of communication are good; and these are generally of a high nature in the vital temperament. It is the nature of good oratory to glow with feeling at all times, and the vital temperament is most susceptible to influences, external and internal, which produce feeling. The personal appearance of an orator of this kind of temperament is attractive and commanding. An audience is powerfully impressed by a well-developed physical form. The vital temperament has, as one of its great elements, the function of reproductivity—to supply material for brain, muscle, flesh, and nerve, is its great office. There is, therefore, a fullness and repletion of all the elements of the body and brain in this temperament. This is of the greatest importance to the orator, not only in supporting the enormous strain of nerve and muscle to which he is subjected, but it gives that equipoise of body, that feeling of ease and repose to gesticulation and voice delivery which is called "reserve-power."

An orator with this temperament performs all the functions of speaking with ease and deliberation. If we pass in review the great orators of ancient and modern times, we will find that the vital-mental temperament prevails in nearly all. Bossuet, Chalmers, Whitefield, Chatham, Fox, Webster, and Henry Ward Beecher are prominent examples.

THE VOCAL POWERS.

The capacity to deliver well a speech or discourse depends upon the vocal organs. In an essay like this I can not go into physiological details respecting the vocal organs. But I may state in passing that vocality depends upon the muscles of the abdomen, the capacity of the chest, the resonant power of the larynx, pharynx, and mouth. According to the size of these organs, all other things being equal, depends the power of elocution. Each of these organs has its appropriate function in voice formation. No system of elocution can be successful if the function of each has not been carefully distinguished. It is the predominating power of one or more of the organs of voice over others which makes the difference in delivery. A large larynx, for instance, will give that deep, bell-like tone which is a characteristic of some speakers. True, accurate, and perfect expression depends upon how far the elements of that expression represent the faculties of the human constitution. In other words, a philosophical analysis of the human constitution should be at the basis of elocutionary training. This principle, when complied with, is productive of the highest results, as I could illustrate from my own experience. When we know, for instance, the natural language either of voice, gesture, or any one of the mental powers of the human constitution, we have a double method of procedure by which we can train that power to express itself in oratory. We can stir up the internal feeling appropriate to that power by bringing before it images, words, or actions which appeal to that emotion, or we can simply assume the language of the emotion without arousing the internal feeling.

There are present in all good delivery two characteristics: symbol and spirit, shell and soul, sign and the thing signified. The most important of these is the spirit or soul. The undercurrent of all impressive oratory is the soul or spirit. Now this is precisely what elocutionists nearly

always neglect ; they are so eager to teach the sign or symbol of a feeling that they do not take means to arouse the feeling itself. The soul or spirit of delivery can not be thoroughly trained without a knowledge of the human constitution. To know the powers intellectual and emotional of the human constitution and their various states of activity from a low to a high degree of passion is of the utmost importance in the cultivation of those powers for the purpose of oratory. Elocutionists are wont to bring forward as proof of the efficacy of elocutionary training the practice of great orators, but the method of these orators has not been the same as those promulgated by modern systems of elocution. Their practice was more psychological. They took selections of orations or poems the sentiment of which was capable of kindling their emotions, and stirred by the internal feeling thus awakened, they delivered themselves. Hence their delivery was natural, not artificial. The basis of all good elocution is a real reproduction of nature. Bellowing and howling, dignified by the name of oratory, have, I hope, disappeared. The natural language of emotions and propensities when carefully studied will give the key to a graceful delivery.

We will not delay on this subject any longer ; but there is one remark which we wish to make in passing. The vocal organs differ in size and quality in the different temperaments. The practice, therefore, of elocutionists in training every pupil exactly alike is a practice unphilosophical and ruinous to good delivery. Many a young man's delivery has been completely spoiled by being drilled in a way which was suitable only for some other temperament. The form and size of the vocal organs should also guide the training. While it is wise to preserve individual characteristics of voice, yet a harmonious cultivation of all the vocal organs should be the aim of Elocution.

It is easy to prove how necessary vocal power has been to the orator. The most distinguished orators on record have had

good voices. The marvelous intonations of Demosthenes and Cicero still linger among the hills of Greece and Rome. Whitefield's wonderful voice representation, with its almost superhuman power, flexibility, and intensity, is still in the memory of man. St. Chrysostom is yet remembered as John of the golden mouth, and Nestor, as the clear-toned orator of the Pylians.

THE PHYSIOGNOMICAL SIDE.

This will not detain us long. Physiognomy is the judging of things by their appearance. Every man, as he presents himself to us, has a *personale* which is striking. We can generally tell whether a man is a great orator or not by his physiognomy. The oratorical type is marked. It is generally characterized by the vital-mental temperament, or by a constitution equally balanced. The face is expressive. Large language fills out the eye ; facile gestures leave their impression on the countenance. The forehead is generally large and wide at the upper lateral region, denoting intellect, and especially the development of the organs of Wit, Ideality, and Sublimity. The propensities and sentiments are generally large, which give intensity and fervor to delivery. We can study his character from his gestures and vocal intonations.

In this analysis of the oratorical type, I have briefly sketched the prominent psychological, physiological, and physiognomical indications. To sum up in a smaller compass, the oratorical type depends upon a rare combination of the powers of mind and body. The orator should have a large brain, active and passionate ; a high, excitable or emotional nature, supported by a strong constitution. There should be a predominance of the faculties of Language, Wit, Ideality, and Sublimity. His intellect must be strong and vigorous, with a predominance of the organ of Comparison. He stands midway between the poet and the philosopher ; he must have all the poet's feeling, with the logic of the phi-

losopher; but he differs from both in that his powers must be displayed in a moment. He has not only to feel thought and emotion, but he has to propel them into his audience. The propulsive power of an orator is the distinguishing feature between oratory and literature. A man may write out brilliant thoughts upon paper, but to deliver them is quite another affair.

Orators differ according to the degree in which they possess these powers. These varieties of oratorical type can be analyzed and their basis pointed out.

In support of the various principles laid down in this essay, we have but to take up the history of all the great orators, ancient and modern, and compare their history with their constitutional development. The sculptured heads and shoulders of seven great orators ornament the upper part of the outside walls of Saunders' Theater at Harvard: they are the heads of Demosthenes, Cicero, St. Chrysostom, Bossuet, Chatham, Burke, and Webster. In all of these heads the faculties we have enumerated are largely developed; and if the shoulders are a just representation of the originals, they evidently have had what we called the oratorical temperament. But if the objector to this method of investigation is fearful lest these sculptured heads may not be exact reproductions of the originals, then we will take orators in our own neighborhood.

Phillips Brooks is known as the most popular preacher in Boston. His whole constitutional build complies with our principles. He has the oratorical temperament, large brain power, with a predominance of the organs of Language, Comparison, and Sublimity. In his sermons he displays a profound analytical skill; he seizes upon a particular conception of a text and carries that conception throughout his whole discourse. No weak puerile descriptions disgrace his sermons; there is profundity of thought with depth of feeling. Everything glows with sublimity, even his very delivery; it is a grand torrent from beginning to

end. He sometimes wearies, because in his delivery there is too much of the grand. His voice has not the silvery clearness nor penetrating quality of Wendell Phillips, nor the compass, flexibility, volume, and expressive intonation of Henry Ward Beecher, but it has a depth and grandeur of resonance, an intensity of enunciation, an animated and expressive utterance, a natural and sympathetic tone, and when vitalized and charged at the cerebral batteries of his large brain, sways an audience at will with an overwhelming current of magnetism. He has propulsive power in abundance, and his great physical stature gives him complete control of his audience.

Let us now take another illustration of a different stamp. Henry Ward Beecher, if not the greatest preacher of the age, is, at least, the most popular orator in America. He fully complies in every particular with the principles herein laid down. He has almost every faculty in the human constitution largely developed. Language is so large as almost to be a deformity. Wit, Ideality, and Sublimity are also large, and his analytical power is immense. His emotional nature is intensely active and passionate. There is original thought, combined with intense feeling, not surpassed by any orator. He is very large in the faculty of human nature, reads the characters of men like a book, and the activity of this faculty he has increased by a study of Phrenology. His knowledge of the human constitution is one element of his success. He preaches to men because he knows just what is in men. His scope of preaching is wider than any other preacher of our age, and perhaps in any age, with the exception of St. Chrysostom. He is practical, logical, and doctrinal; but the practical element is the most emphasized by him. Full of illustrations and original thought, he never wearies. Age has not diminished his power. The streets of Brooklyn leading to Plymouth church are still crowded with people anxious to obtain standing-room. On account of his independent thought, he differs in many

points from his orthodox brethren; but the views which he entertains resemble those of the new school of German theology. On account of his fertile imagination, he never seems to get exhausted. His sermons are always full of new material and new illustrations. If these qualities are not connected with his large psychological development, then with what are they connected? His physiological and physiognomical developments are equally remarkable. Beecher has a well-balanced constitution, with a

predominance of the vital-mental temperament. His stature is just a little above medium height, but his whole physique is firm and well knit. The quality and texture of brain, nerve, and body are good. His vocal powers are wonderful. He has a graceful and natural delivery, pitched on a conversational basis, but capable of the grandest flight of oratory. In every respect Brooks and Beecher fulfill the requisites for oratory laid down in this essay.

* * *

CHINA: ITS AGE, GOVERNMENT, AND SOCIAL CUSTOMS.

THE Chinese Empire is probably the largest that the world has ever known, with the single exception of Russia. It comprises $74\frac{1}{2}$ degrees of longitude and 38 of latitude, and has an area of more than four millions of square miles. This enormous empire contains one-tenth of all the dry land, and one-fourth of the entire population of the globe. China proper is divided into twenty provinces and the empire includes besides this Corea, Mantchooria, East Toorkistan, Mongolia, Soongaria, and Thibet. China is evidently one of the most ancient of nations. Like the Egyptians and Hindoos, the Chinese lay claim to almost unlimited antiquity. Their traditions reach back for millions of years to a time when the people were governed by the gods.

The Chinese chronology, which, like the Chaldean, moved in cycles of sixty years, began in the reign of Hwang-ti, about 3000 years B.C. They made astronomical observations at a very early age. According to their own account the first of these occurred 145 years before the Emperor Yao, who lived 2145 B.C., which was therefore about the time of the deluge, according to Usher. In view of the many facts and theories which have been collected bearing on this age of the Chinese empire, differing opinions have obtained among European scholars. Dr.

Gutzlaff, a German, who spent many years in China, and who wrote a history of the empire, thinks we must "date the authentic history of China from Confucius, 550 B.C., and consider the duration of the preceding period as uncertain." His opinion is that the first settlers of China emigrated from the West, probably from Hindoostan. This idea is supported by the Code of Menu, one of the Hindoo sacred books, believed to have been written at least 1200 years B.C. M. de Guignes of the French Academy of Inscriptions and Belles Lettres, maintains "that an Egyptian colony established itself in China about 1122 years B. C.; that the emigrants carried the history of Egypt along with them, and that it has been grafted into the true history of China; that the first two dynasties of the Chinese annals are precisely the same as those of Thebes in Upper Egypt. He observes, the founder of the third is represented as a conqueror who divided the provinces and gave sovereignties to his friends, and the officers of his army," and "that the Chinese allow that there is a people to the westward of them, and beyond the Caspian Sea, of the same origin with themselves." But whatever may be the authenticity of ancient Chinese traditions, or whatever the decisions of scholars concerning them, we may be tolerably sure that the Chinese

civilization reaches back nearly, if not quite, to the time of the deluge.

If we omit several mythological personages, the first of whom we have any distinct account is Fu-hi, who is considered as the founder of the empire. He was said to have had no mortal father, but was conceived by a virgin encompassed by a rainbow. Fu-hi is said to have founded

nung, which means the divine husbandman. He taught the people agriculture and a knowledge of the healing art.

The origin of the name "China" has excited considerable discussion in learned circles, the general belief being that it was derived from the name of the Tsin dynasty, which became supreme about the year 249 B.C.; but this opinion will not



WEN LIUNG, A HIGH OFFICIAL (MANDARIN).

the city of Chin-too in the province of Ho-nan. He determined the length of the seasons, and introduced order into the performance of business. Wishing to arouse the softer feelings of human nature, he was desirous of teaching his subjects the science of music. He instituted the marriage ceremony, appointed negotiators of courtship (a distinctively Chinese institution), and regulated the government. The successor of Fu-hi was Shin-

stand the test of modern criticism aided by a more extensive knowledge of the literature of Eastern nations. The name was used in the Sanscrit and other Indian languages. It is found in the laws of Menu, and the ancient Tamul books. It is also found in the Hebrew of Isaiah, 400 years before the Tsin dynasty had an existence. Some have thought that China, like Rome, Idumea, Russia, and America, received its name from some individual as an ances-

tor or chieftain, and point to Shin-nung, the son of Fu-hi. But there is another explanation which seems far more reasonable than any which has been mentioned. The name Britain means the "land of tin"; Brazil, the country of a certain dye-wood; Palmyra, the land of the palm. In a like manner the name China originated in the native word for silk-worm. The most ancient historical work existing in China, and which was written by Confucius, in mentioning the silk-worm uses the word *tsan*. The word *tsan* seems to have been the source of the name Tsin, or Chin, or Sin, by which this people was known in the languages of most of the Asiatic nations. There was another name, however, by which they were known to the Greeks namely, "Seres," a word which in its adjective form is found in Rev. xviii. 12, and which no doubt has given us the word silk. The root of this word is supposed by scholars to be derived from the Chinese word *sze*, and which denotes the silk *fibre* or *thread*, imported from China in that luxurious age and sold for its weight in gold to the wealthy Romans.

With the exception of the United States there is no nation on earth more free than is China. "There are few nations of the world among whom the freedom is more large, more squarely founded upon their intelligence, or more carefully guarded against despotism than it is in China." And this is no doubt one cause of the permanence of their nationality. The opinion which has most generally obtained credence among Americans concerning the Chinese, is that they are the most "vicious and sensual" of all civilized nations; that they are cruel, revengeful, and deceitful. But this opinion is quite erroneous and should be corrected.

THEORY OF THE IMPERIAL POWER.

The theory of the imperial power is that the people are not subjects to be

ruled by fear, but children to be inspired and controlled by affection and gratitude toward a Father who with unceasing anxiety watches over and cares for them all. Yung-ching, one of their greatest emperors, who reigned for sixty years from A.D. 1661, wrote a book of instructions upon the basis of sixteen maxims of his father, Kang-hi, for the purpose of having them read to the people the first and middle of every month. In the first of these instructions, Yung-ching says: "The definite design of our sacred father was to govern the empire through filial piety. Upon that principle is founded the unchangeable laws of heaven, the govern-



CHINESE LADIES AT HOME.

ment upon earth, and the common obligations of all men."

The comparative freedom of the people of China is in the next place made manifest in the political principles upon which the general government is administered. To secure an intelligent, capable, and faithful majority, the foundation of all preferment is placed upon education. In China no man can hold office in the province of which he is a native. The intention is that officers may be removed from local influences, to the end that justice may be done in all cases. But as such influences may grow up in the course of time, it is also made a rule that no man can hold office in one place more than three years; and upon the expiration

of that time he is removed to some other position.

The number of civil officers in China amounts to about 14,000, all of whom are paid by the government. Every province has its viceroy, every city its governor, every village its prefect, and each of these is assisted by a council of inferior magistrates, and has a number of officers in various departments subordinate to him. There are nine degrees of rank among the officers of the Chinese government. The body of the nobility is constantly fluctuating, some being advanced to higher positions on the one hand, while new magistrates are frequently appointed on the other, and also by the admission of new candidates after every examination. Such being the case, it was difficult for the people always to know who composed the nobility; but this difficulty was overcome by Wan-liek, who ascended the throne in 1571. He caused to be published every three months, for the convenience of the public, a book containing the name, rank, and native city of every officer in the empire; a custom which has been continued ever since. It is called the "Red Book" from its color, red being much used in connection with the ceremonial matters both of religion and state.

Each governor of a province maintains a court of his own, and whenever he appears abroad he is attended by a numerous retinue, bearing the symbols of his high office. He is carried in a gilded chair or sedan, invariably accompanied by the public executioners, some carrying chairs and others that universal instrument of justice, the bamboo, which is very unceremoniously applied on the spot to any unlucky wight who may chance to be detected in any misdemeanor; consequently the approach of the high functionary never fails to inspire a degree of awe, which is manifested by the respectful haste with which the people make way for the procession, where they range themselves close to the walls, and stand perfectly still and motionless till the whole retinue has passed. The governors

are entrusted with despotic authority, but they must be careful how they use it, as they are always liable to the visits of the imperial commissioners, who frequently arrive from the capital without giving notice of their approach, for the purpose of seeing whether all is as it should be; and if they find anything wrong it is immediately reported at court, when the offender is visited with a prompt and often severe punishment. A single word from the emperor is sufficient at any time to deprive the first grandee in the land of his rank, his property, or even of his life. The governor of a province or a city is particularly liable to such a reverse from the nature of the laws which hold him responsible for many public calamities, which are attributed to accident in other countries, and which are supposed to arise from a want of vigilance on the part of the chief magistrates, who are required to see that the subordinates are attentive to their several duties. Every one holding an official position is answerable for the conduct of those who are below him, and if the inferiors are negligent in their respective departments, the superiors are liable to punishment. For instance, if the country is inundated by the sudden rising of a river, the chief magistrate is considered at fault for not having attended diligently to the repairing of the embankments. Should lives and property fall a sacrifice to fire, it is presumed that they might have been saved by more active measures; consequently the magistrates are blamed for not keeping a more efficient police, and governors are blamed for appointing such careless magistrates. The most usual punishment for maladministration is degradation to a lower rank, according to the nature and magnitude of the offense. If the fault be a very serious one, the offender, if of the highest rank, is perhaps degraded to the lowest; that is, from the first to the ninth class of officers; but if it is only a trivial offense, he is lowered one, two, or three degrees; and in most cases the punishment is only for a certain time, at the expiration of which he is restored

to his rank and office, and resumes his former place in society as though nothing had happened, for a temporary disgrace of that kind leaves no stigma upon the character of the individual.

"Crimes that are considered in the light of treason are visited with a heavier penalty. Banishment or death is the doom of him who is discovered to have neglected or disobeyed the commands of

THE DEPARTMENTS OF STATE.

The Too-yu-she, or Board of Censors, is an establishment somewhat separate from the other departments or government. Its officers are appointed to revise all documents which may be sent to the court, and to inspect the conduct of every officer, from the emperor on the throne to the humblest individual in the employ



A CHINESE PRIEST.

the emperor; and generally the whole family of the culprit share in some measure, his fate, although entirely innocent of his crime. The enactment of this unjust law was doubtless originally intended to deter the people from ill-advising their relatives, or encouraging them in any act contrary to the interests of the government, and even to make them watchful and anxious for the good conduct of each other."

of the government. The officers of this department are scattered throughout every part of the empire, as spies upon the government officials, and should any individual be found remiss in duty, he is immediately reported at headquarters, where he is visited with merited punishment. Wealth and power are no protection against the rebukes and punishments meted out to offenders by this courageous board of officers. When the welfare

of the people seems to require it, the vices of the emperor himself are sternly reprov'd; even when, as in some cases, death is the consequence.

Wu-ti, one of the early emperors of the Han dynasty, was a prince famed for many virtues, but unfortunately had a strong belief in magic, and "maintained a number of Jesuit priests at his court, who were constantly engaged in studies which he was credulous enough to believe would lead at last to the discovery of the elixir of life, a draught of which he was extremely anxious to taste. In this hope he was continually supplying the sages with large sums of money to enable them to procure the rare ingredients for making the wonderful liquid, some of which they pretended were hidden in remote corners of the earth, and only to be obtained with great difficulty and with the aid of magic."

The ministers remonstrated in vain with him upon the folly of expending the public money upon such idle pursuits. He was deaf to their entreaties, and turned his whole attention to the experiments of his magicians. At length the wonderful draught was ready, and the chief priest was commanded to bear it to the emperor. As he was crossing the great hall of the palace with his precious burden, one of the ministers, feigning a desire to examine closely a compound which was to accomplish such marvelous results, suddenly snatched the cup and drank the contents. The emperor, disappointed and enraged, ordered that the offender should instantly lose his head. But this consequence had been foreseen by the daring officer, who was prepared with a most ingenious defense. "O, most mighty prince," said he, "how is it possible for thy commands to deprive me of life, if the potion I have just swallowed has really the power ascribed to it? Then make the trial; I willingly submit to the test; but remember that if I die, thy system must be a false one, and in that case my poor life will have been well bestowed in convincing my prince of his error." The

emperor, after considering the matter a few moments, pardoned the offender.

Another example: Tai-tsung, an emperor of the seventh century, was very strict in his administration of justice. He passed a law for the prevention of bribery, making it an offense punishable with death. Having suspected the integrity of one of his magistrates, he employed a certain person to offer him a bribe. The bribe was accepted and the guilty magistrate was condemned to death; but his life was saved by one of the ministers, who thus addressed the emperor: "Great prince," said he, "the magistrate is guilty and therefore deserves to die according to the law; but are not you, who tempted him to commit the crime, a sharer in his guilt?" The emperor at once admitted that he was, and so pardoned the offender.

Sir George T. Staunton, who made a translation of the penal code of the present dynasty, says, in a note on section 171: "The Tribune of the Censorate has the power of inspecting and animadverting upon the proceedings of all other boards and tribunals of the empire, and even on the acts of the emperor himself whenever they are conceived to be censurable." Du Halde describes the censors as the representatives of the government, to whom the emperor himself is obliged to yield, for, says he, "should he injure them, he would in reality increase their honor, and obtain for himself odious epithets, which the appointed historians of the empire would scrupulously transmit to posterity." He remarks that the court is obliged to degrade officers whom they persist in accusing, "to avoid disgusting the people and sullying its own reputation."

The ordinary business of the Chinese government is conducted by the Lu-puh, or six departments of state. They consist of the boards of Civil Office, of Finance, of Rites, of War, of Punishments, and of Public Works.

1st. The Board of Civil Office. Its business is to "take care that all the offices under government are properly

filled, and that those to whom authority is entrusted shall use it with moderation and discharge their several duties with punctuality. The members of this board are responsible for the conduct of all the viceroys, magistrates, and civil officers of every description, and are obliged at stated periods to send an account of their proceedings to the emperor; so that if any of them are guilty of misconduct, it is almost sure to be made known, and they are punished according to their misdemeanors. Each governor of a province or city is obliged to send a report to the board once in three years, as to the conduct of all magistrates under his jurisdiction, and also of any injuries done by himself to his poorer brethren, when seated on the magisterial bench to dispense justice; and this statement is compared with that of others, who have been keeping a watchful eye upon him; so that it is a dangerous experiment for a magistrate to attempt to conceal his delinquencies, since they are almost sure to come to the knowledge of the board; and he is then punished not only for the crime, but for the concealment. These regulations are intended to protect the people from oppression, and must certainly act as a check to an undue exertion of power on the part of the authorities, although they may be frequently evaded."

2d. The Board of Finance has charge of the government revenues, and its duty is, to "superintend all taxes and duties paid into the imperial treasury and storehouses, some being collected in money, others in kind. They regulate salaries and pensions, distribute the proper quantities of rice, silks, and moneys which are allowed to princes and officers of State, and keep general accounts of the receipts and expenditures of the government, the various monopolies, the mines, the public mint, and other sources of revenue."

3d. The Board of Rites. To this board belongs the direction of the State ceremonies observed among the Chinese. It "appoints the days for holding festivals and royal hunts, and for the

performance of sacrifices and other religious rites. It regulates the costume to be worn by different orders of the people; the etiquette of the court, as well as to some extent of private society; the reception of ambassadors, the entertainments given by the emperor; and, in short, it has the superintendence of those outward forms and usages which in China are considered of so much importance. It superintends also education, the competitive examinations, and correspondence with foreign nations." A Chinaman may not wear his summer or his winter cap when he chooses, but must wait for the time appointed by the board of rites. "The announcement is made in the *Gazette*, when the viceroy of the province lays aside the cap he has been wearing the last six months, to adopt that of the approaching season, and the example is followed by all other mandarins and officers within his government."

4th. The Board of War "has the control of the army and navy; the appointment of their officers, systems of discipline, commissary matters, postal arrangements by way of couriers, etc., and forts and garrisons."

5th. The Board of Punishments. This board being judiciary in its character, "superintends the execution of the penal laws, appeals, pardons, fines, and cases of capital punishment. It is a fact which exhibits the great moderation and equity of the government, that among the hundreds of millions of subjects, capital punishment can in no case be administered without the final reference of it to this board, and the imperial consent."

6th. The Board of Public Works. This board is "charged with the care of the roads, the canals, bridges, temples, palaces, and all public edifices."

It may thus be seen that the theory of the Chinese government is equal to that of some nations that call themselves Christian. Indeed it has some elements of superiority. With less knowledge of the true God, they show in certain respects more practical virtue.

ALBERT M. DUNHAM.

SOME GENERAL OBSERVATIONS ON AMATIVENESS.—No. 4.

IF we are correct in our philosophy; if the ultimate in love is naturally limited, as a law, to the great and fundamental purpose of continuing the human species on earth; if this view is to possess us, a good many things logically follow, some of which we will proceed to point out.

(a) It is not advisable to arouse and evoke passion in its strength and desire previous to full puberty, nor then and afterward, when there is no justification or wise wish for parentage.

(b) If so little is to be given to mere physical love, then a great deal could be saved for platonic, for material culture, the increase of knowledge, the joy of friendship, and every noble achievement.

(c) In a community disciplined to this standard, there would be unusual freedom of intercourse, little jealousy, little solicitude, a paradise for girls that no serpent could enter.

(d) In such abeyance of animal passion, every fact relating to the reproduction of the species, the differentiation of the sexes, and the like, could be calmly and thoroughly discussed.

(e) In the improved state of mind and heart, aged women, plain women, women not voluptuous or magnetizers of soft desire, could be more adequately appreciated; their social, moral, and intellectual worth, varied work and usefulness acknowledged, and a merely handsome woman, a Venus, would not secure such disproportionate attention.

I saw the following in the Springfield *Union*: "Mr. Abbey states that the total receipts from Mrs. Langtry's performances during her twenty-four weeks' stay in this country were \$229,663. Boston paid \$22,155 in two weeks, and the receipts at New York, during her first week, were \$18,765."

This woman, now returned to America, has a fine *physique*, an amiable disposition, and, I hope, no enemies. Yet the writer is sorry that she can secure so great prosperity simply because of good

features and a fine figure, while myriads of her sex, equals in intellect it may be, must remain in obscurity and poverty.

(f) If mere lust be abated, then woman may dress more sensibly, appear more naturally, be allowed more freedom, escape all the thralldom of the harem, devote herself assiduously to every good word and work in which she instinctively delights or her brothers are engaged.

(g) Also, in the new world of rational self-control, we should finally escape elopements—many avengements, tragedies, divorces, ill-considered marriages, and so on—a long, dismal chapter.

(h) In the trend of consistency, the mastery of the greatest passion would be accompanied and followed by the giving to the spirit the dominion over all the lower tiers of faculty in the brain of man. Oh, the guilt, the weakness, the waste, the confusion, the pain, the darkness, from which man would emerge!

It seems to me that we have now reached a broader way of considering the sexes, of estimating their relations through a matter-of-fact description of traits that is altogether profitable and encouraging. I would here present some illustrations of my position, culled from an extended reading. They are choice and valuable in themselves.

We will begin with

ENGLISH AND AMERICAN GIRLS.

"It is asserted that the average English girl of twenty is a finer creature physically than her American contemporary—larger-boned, more muscular, fuller-blooded, and in general more robust. The children's food at English schools is more digestible and nourishing. To eat regularly three hearty meals every day is a duty and a pleasure in an English family or school. Girls are required to bring luncheon from home, or buy it at the school. English girls are more in the open air than American girls, and indoors

they live in rooms warmed by open fires. Girls are not allowed to study after eight o'clock in the evening, in order that they may have time to rest before bed-time. If the pupil can not complete her lesson within the time mentioned, she leaves it undone. An English girl of good family grows up until she is eighteen years old in an atmosphere of profound quiet; she sees very little of young men, besides those of her own family; does not go to parties or public entertainments of any sort, and knows little, and cares less for the outside world. As fortunate marriages are what English girls desire, it is important that a young woman, in all classes of society, should be healthy and vigorous. In the language of Dr. Clarke, 'the English educate the body more than we do, and in this respect build better brains. There is no reason why we should not equal or surpass them in this respect as well as others. A republic should build the bodies and form the brains of its children with as much care and excellence as a monarchy performs the same task for itself.' Let our girls heed this advice, and take plenty of exercise—out of doors as well as in the house."

Again,

THE AMERICAN GIRL.

"BERLIN, Oct. 7.—The following article is going the rounds of the German press: 'The American girl, not to be confounded with the English girl, as is often done on the continent, is a most peculiar creature, and at any rate worthy of close observation. Although talented, and from childhood accustomed to think and decide for herself, the American girl seldom amounts to much; takes life in the most comfortable, agreeable, and elegant manner; and is a very expensive daughter, a still more expensive wife. In the large American cities, the ladies dress in genuine French fashion, and always wear their diamonds both morning and evening, in the street and in the ball-room. This is a decided lack of taste, and, according to our ideas, vulgar. One can scarcely tell a married woman from an

unmarried lady. Both dress alike; in fact, no costume is considered too pompous for a young girl. The ladies on the other side of the ocean suffer very little from superfluous freshness, which may partly be attributed to the climate, partly to excessive eating, munching of candy, and continual sitting in rocking-chairs. American girls are most always pretty and may often be called handsome.

"Of medium height, extremely delicate and graceful, most too fragile to suit us; fine small head aristocratically poised; almond-shaped eyes of deep blue; auburn hair; full-cut mouth and small feet, her exterior is the prototype of a lady; and they are all alike—the million-heiress of Fifth Avenue and the down-town shop-girl. In conversation her face sometimes grows roguish and frequently animated, but never expresses depth of feeling or passion. In all cases and classes the American women excel the men in education, even if the greater part of their knowledge is acquired by reading papers, journals, and such books, with which America is overrun, and which are read by rich and poor with the same eagerness. Of the amount of printed paper a nation is capable of devouring, one can judge best in America. The women are also more cultured than the men, because an American man is a through and through business man, and his highest aim is to earn sufficient money to keep his family genteelly.'"

I would still suppress original remark, attempting further to enrich the pages of the JOURNAL with kindred excerpts, all so indicative of a calm and intellectual consideration of that which formerly got scarcely any attention, unless in a lightning flash of passional fancy. The contrast is great, when compared with the allusions of the elder poets and writers of romance.

This is what a religious paper of the South published not long since on

SWEET-MINDED WOMEN.

"So great is the influence of a sweet-minded woman on those around her that

it is almost boundless. It is to her that friends come in seasons of sorrow and sickness for help and comfort; one soothing touch of her kindly hand works wonders in the feverish child; a few words let fall from her lips in the ear of a sorrow-stricken sister do much to raise the load of grief that is bowing its victim down to the dust in anguish. The husband comes home worn out with the pressure of business, and feeling irritable with the world in general; but when he enters the cosy sitting-room, and sees the blaze of the bright fire, and meets his wife's smiling face, he succumbs in a moment to the soothing influences which act as the balm of Gilead to his wounded spirits, that are wearied with the stern realities of life. The rough school-boy flies into a rage from the taunts of his companions to find solace in his mother's smile; the little one, full of grief with her large trouble, finds a haven of rest on the mother's breast; and so one might go on with instance after instance of the influence that a sweet-minded woman has in the social life with which she is connected. Beauty is an insignificant power when compared with hers."

THE SINGLE WOMAN.

"There is no sweeter and more interesting character, whether in fiction or real life, than the spinster who has, for some good reason, refused a lover's proposal, and being now past the flower of old maid. The ordeal through which she has passed seems to have refined her feelings, and of itself insensibly drawn to her the regards of all who know her history. Such a one is eminently lovable and sympathetic, forward in all good works, the warm friend of married men and women, the *confidante* of many a tender passion. Age does not wither the beauty of her disposition. She never slanders, never retails ill-natured gossip; but, on the other hand, though prompt to put in a seasonable word on a crisis, does not deem it her mission to set all the people around her right. She makes an admirable aunt, and

is very necessary to the comfort of a large circle of cousins. Many a young fellow on the threshold of life bears a kindly remembrance of her for the good nature and tact with which she helped him to steer clear of shoals where he might otherwise be wrecked."

THE WORLD'S HAPPY WOMEN.

"A happy woman! Is not she the very sparkle and sunshine of life?—a woman who is happy because she can't help it, whose smiles even the coldest sprinkling of misfortune can not dampen. Men make a mistake when they marry for beauty, for talent, or for style; the sweetest wives are those who possess the magic secret of being contented under any circumstances. Rich or poor, high or low, it makes no difference; the bright little fountain of life bubbles up just as musically in their hearts. Do they live in a log-cabin, the fire-light that leaps up on its humble hearth becomes brighter than the gilded chandeliers in an Aladdin palace! Do they eat brown bread or drink cold water from the well, it affords them more solid satisfaction than the millionaire's *pate de fois gras* and iced champagne. Nothing ever goes wrong with them; no trouble is so serious for them, no calamity so dark and deep that the sunlight of their smiles will not 'make the best of it.' Was ever the stream of life so dark and unpropitious that the sunshine of a happy face falling across its turbid tide would not awaken an answering gleam? Why, these joyous-tempered people don't know half the good they can do. No matter if your brain is packed full of meditations on 'afflicting dispensations,' and your stomach with medicines, pills and tonics, just set one of these cheery little women talking to you, and we are not afraid to wager anything that she will cure you. The long-drawn lines about the mouth will relax, the cloud of settled gloom will vanish, nobody knows when, and the first you know you will be laughing. Why? This is another thing; we can no more tell you why, than we can tell you why

you smile involuntarily to listen to the first blue-bird of the season among the maple-blossoms, or to meet a lot of yellow-eyed dandelions in the crack of a city paving-stone. We only know that it is so. Oh, these happy women."

Again, on the sacredness of marriage it is said: "For the man and woman who purely and truly love each other, and are guided by laws of justice, marriage is not a state of bondage. Indeed, it is only when they become by this outward acknowledgment publicly avowed lovers, that freedom is realized by them in its full significance. Thereafter they can be openly devoted to each other's interests, and avowedly chosen and intimate friends. Together they can plan life and enter upon the path of progress. Together they can seek the charming avenue of culture, and, strengthened by each other, can brave the world's frown in the rugged but heaven-lit path of reform. Home, with all that is dearest in the sacred name, is their peaceful and cherished retreat, within whose sanctuary bloom the virtues that make it a temple of beneficence."

Here is something partly a touch for the husband: "The wife is unceasingly told to soothe her husband—that, in fact, her function is that of a soothing syrup. He is out in the fresh air, in vigorous health, has no nerves, chats with a hundred people, hears and repeats funny stories, has a varied and breezy life; while his wife stays all day long in the same house, breathes over the same air, washes over and over the same dishes, hears the monotonous cry of ma, ma, ma, fifteen hours a day, till she is wild with headache and nervousness; then she is to watch for her husband's coming, greet him with a smile, and proceed at once to soothe him. The first and highest duty of a woman, married or unmarried, is to preserve her health, and to perform her duties to all about her. If married, it may be her duty to soothe her husband, if he is sick or worried; but it is more like her highest duty to teach her husband cheerful patience, self-help, and deep respect for her maternal functions. A wife

who allows her husband to make her unhappy by fussing over the demands of his appetite or by staying too much within doors that she may be always there when he arrives, or in any other way to sacrifice her health to his pleasure, may be a very devoted wife; but she is an unfaithful mother, and a silly woman."

Let Americans note that "in Europe a woman begins her social career after her marriage, and is a greater belle at 40 than at 20. She is supposed to have acquired some ideas to be a more agreeable person at the latter age and is more sought for as a personage at all dinners, balls, and entertainments. In America she is too often ignored at that age, and called *passé*."

I can almost hear some reader saying: "I think Impersonal is an anchorite. He or she knows nothing of real love, has not said much about it, really delights to disappoint the clinging heart, and would deprive us of the great solace of life." We confess we have wandered somewhat (not without an object), passed by very much that belongs vitally to our topic, etc. If we continue to write, shall incline more to the physiology and psychology of our theme. We want to claim here and now, however, that we are alive to all the fascination of sexuality, and in closest sympathy with the happiness of the race. Pleasure is not necessarily a bad word with us. We—if the plural may be in this use—are somewhat romantic, at least. The story of love pleases us throughout all its paragraphs. We have a ready appetite for its entire literature. It is not sickish, silly, or effeminate. It is the greatest, profoundest of subjects. Only the ignorant, the brutal, the cramped or superstitious regard it askance. Rev. Sydney Smith, one of England's greatest minds, wrote about kisses with veneration and fervor. In the best literature, sacred or secular, in the finest romances, the sweetest plays, the noblest sermons, in history and science, love is placed on the throne. Nothing else is so profound, so potent, so enduring. No phase of it in man or animal should be subjected to burlesque or contempt. It was ordained

to be mighty for the most fundamental of purposes. It rises, one octave above another, until it strikes the chords of celestial felicity, and the rhythmic throbs of the Infinite Life. It is an absolute necessity on earth and in heaven. All love—passional, platonic, organic, atomic, sentimental, and divine—has contemplated, in its inmost life, one line of absolute unity. They who apply to any section of it disagreeable words, mawkish epithets, utter them with grimace, break upon it with sneer, are chargeable with a kind of blasphemy. If men assume that war, politics, callings, or business are more consequential and manly, they so far befool themselves. Love is first, foremost, deepest, highest.

Just now we were reading this of Margaret Fuller, one of the most independent and intellectual of women: "At thirty-seven she married the Marchese Ossoli, and after her son was born and her marriage made public, she poured her affections and devotion into their natural channel, and lived for her two 'treasures,' Ossoli and Angelo. The story of the marriage is singular and interesting. All her life Margaret had been admired and flattered by intellectual men, but when she married it was not for mental stimulus, or intellectual companionship, or even fellowship in work; it was a simple case of, 'I love my love because he loves me.' She writes, 'He loves to be with me, and to serve and soothe me'; she tells of 'the power and sweetness which he diffused over every day,' and of the rest and peace which she found in his 'constant affection and quiet sense of duty.' All this portion of her story is very tender and touching, making the reader feel that she had missed her vocation, and that it was sad for her that the domestic life and love which would have softened her youth, and brought repose to her tumultuous nature, should have come to her only in middle life."

Shelley sang:

"The fountains mingle with the river,
And the rivers with the ocean;
The winds of heaven mix forever,
With a sweet emotion;

Nothing in the world is single,
All things, by a law divine,
In one another's being mingle:
Why not I with thine?

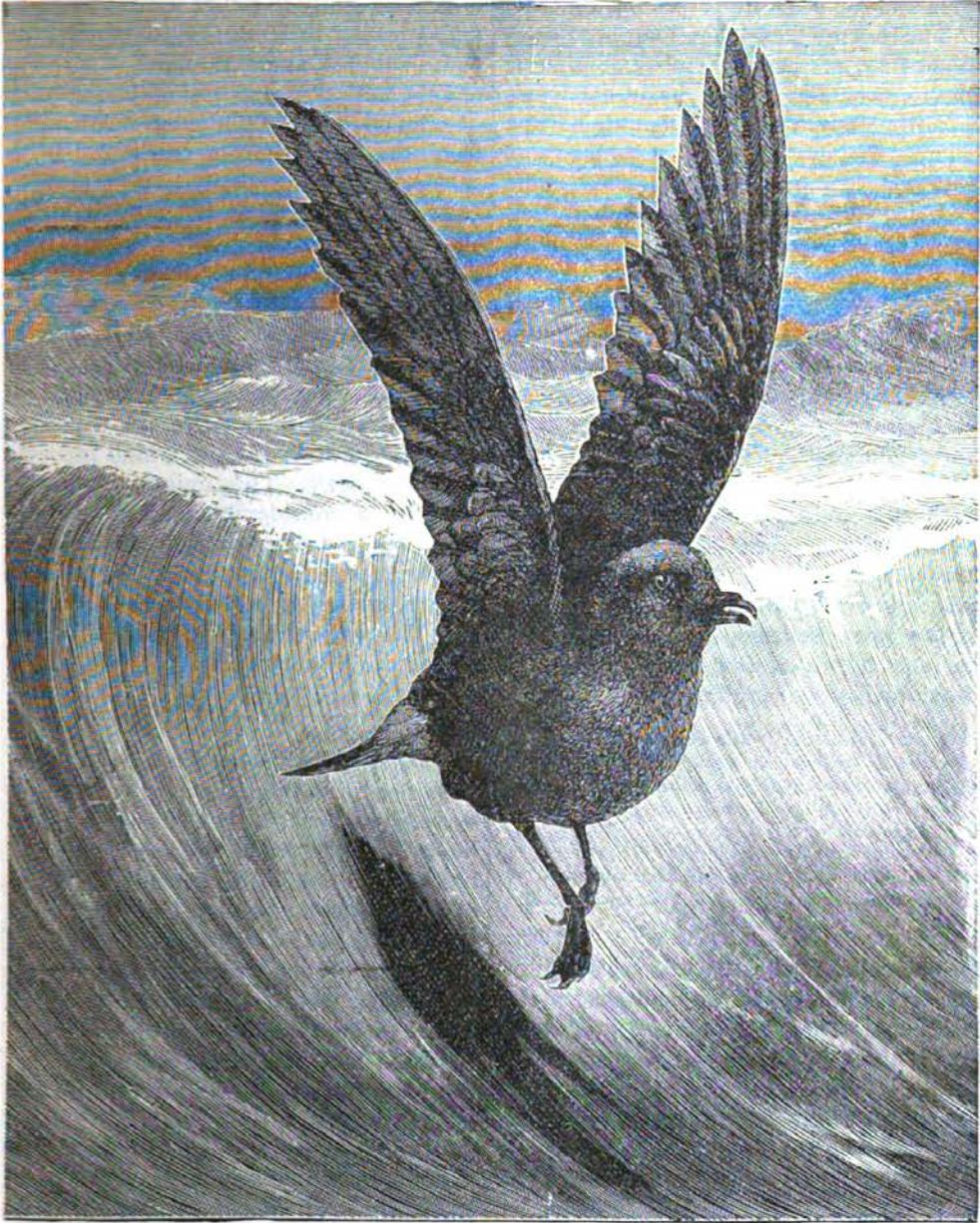
"See! the mountains kiss high heaven,
And the waves clasp one another;
No sister flower would be forgiven
If it disdained its brother;
And the sunlight clasps the earth,
And the moonbeams kiss the sea;—
What are all their kissings worth
If thou kiss not me?"

And Moore:

"Come, rest in this bosom, my own stricken deer,
Though the herd have fled from thee, thy home is
still here;
Here still is the smile no cloud can o'ercast,
And a heart and a hand all thy own to the last."

Almost boundless has been the utterance, the imagery of love, in song, in hymn, in tale, in discourse. Its voice will never be silent or stale. IMPERSONAL.

A GOOD SIGN. — A young man had declared love to a lady and asked her to be his wife. She hesitated, and he allowed her her own time to consider the matter. One evening, soon afterward, she had occasion to visit an aged relative who resided in the family of which the young man was a member. As she approached the door a sudden impulse caused her to pause. He might be at home, she thought, and she might encounter him. And seeing her there, he would probably imagine she called on purpose to see him. While she stood upon the doorstep meditating, she heard the oven door of the cook-stove open, then the rustle of a paper, as if it were thrown upon the table; then a firm, light step and the voice of her admirer saying in a gentle way, "Let me do it, mother." Then she knocked, and was admitted just in time to see the young man taking some pies from the oven. This little circumstance aided the young lady in concluding what answer to make to the all-important question; and in married life finds the young man an excellent husband and father.



THE STORMY PETREL.

WINTER has set in with its accompaniment of wind and fitful changes, and our thoughts are turned toward subjects which are naturally associated with storm and tempest. Hence our production of the interesting bird in the picture. We have seen many specimens of this active sea-rover skimming over the turbulent water of the ocean, and apparently rioting for very joy in the strong wind that strained the cordage of our ship. Indeed as we leaned over the taffrail and watched these sturdy winged chickens of Mother Carey we

have become almost indifferent to the gale and the pitching vessel.

The stormy petrel has long been celebrated for its peculiar movement as it passes over the waves, its webbed feet pattering the water, and its long narrow wings flapping with force enough to sustain it just above the water. The name petrel is said to have been derived from the endeavor of Peter, one of the disciples of Christ, to walk on the water. Sailors have been disposed to regard it as a bird of ill-omen, foretelling storm and disaster; but the fact of its being most active in windy weather is simply because it finds that the most favorable time for feeding; then the disturbed waters throw to the surface the little fish, mollusks, and crabs which constitute its food. And it follows in the wake of a vessel for the sake of picking up the table refuse which is thrown overboard.

The poet Montgomery alludes to the manner in which the petrel obtains its food in the following lines :

"Here ran the Stormy Petrels on the waves,
As though they were the shadows of themselves,
They plowed not, row'd not, gather'd not in barns,
Yet harvest inexhaustible they reaped,
In the prolific furrows of the main ;
Or from its sunless caverns brought to light
Treasures for which contending kings might war,
From the rough shell they pick'd the luscious food,
And left a prince's ransom in the pearl."

The color of the bird is a brownish or sooty black, except the coverts of the tail, and the tail and vent feathers, which are white. In size it is about that of a swallow, with, however, longer legs. Naturalists tell us that it does not frequent the land except during the breeding season, and can repose on the surface of the ocean, settling itself just at the mean level of the waves, and rising and falling quietly with the swell. The petrel breeds on the northern coasts of England, laying a white egg in some convenient recess, a rabbit burrow being often employed for the purpose.

Mr. Reid, of Kirkwell, Orkneys, has given the following short but graphic description of these birds while breeding: "They land on our islets every breeding

season. I have had them handed to me alive, frequently together with their eggs, and stinking little things they were, as bad, I suppose, as the fulmar."

This bird possesses a singular amount of oil, and has the power of throwing it from the mouth when terrified. It is said that this oil, which is very pure, is collected largely in St. Kilda by catching the bird on its egg, where it sits very closely, and making it disgorge the oil into a vessel. The bird is then released and another taken. The inhabitants of the Faroe Islands make a curious use of the petrel when young and very fat, by simply drawing a wick through the body and lighting it at the end which projects from the beak. This unique lamp will burn for a considerable period. Sometimes the petrel appears in flocks, and has been driven southward by violent storms, some having been captured on the Thames, others in Oxfordshire, and some near Birmingham. D.

DRESS.—A lady who is tired of the impositions of fashion exclaims: "Dress dress, dress! It is the bane of womanhood from the cradle to the grave, and has been ever since Eve made an overskirt for herself out of fig leaves. Everything we do is mixed up with our toilet somehow. When we are christened our christening robe is the first thought. When we are taken to church we are ribboned and belaced to make our appearance there; and we are told we cannot possibly go in those shabby old shoes but must wear the nice Sunday ones. When we are married, our costume is the topic which all discuss, and white satin and pearls are more important by far than our emotions. And when the most terrible grief of life falls upon us, anxious voices beg us to declare in favor of bias folds of crape and a veil with a hem half a yard wide; or ask us softly whether we are going to mourn deeply, alluding, of course, to our black clothes. Yes, and when we are dead ourselves, it is still our 'lay out' that must be thought of."

COMUS:

A MASK.—BY JOHN MILTON.—(Continued.)

Y. Bro. O Night and shades,
How are ye join'd with Hell in triple
knot,
Against the unarm'd weakness of one
virgin,
Alone and helpless! Is this the confi-
dence

You gave me, Brother?

E. Bro. Yes, and keep it still,
Lean on it safely; not a period
Shall be unsaid for me: against the
threats

Of Malice or of Sorcery, or that power
Which erring men call Chance, this I
hold firm,

Virtue may be assail'd, but never hurt,
Surprised by unjust force, but not en-
thrall'd;

Yea, even that which Mischief meant
most harm,

Shall in the happy trial prove most glory:
But evil on itself shall back recoil,
And mix no more with goodness, when
at last

Gather'd like scum, and settled to itself,
It shall be in eternal restless change
Self-fed, and self-consumed: if this fail,
The pillar'd firmament is rottenness,
And earth's base built on stubble. But
come, let's on.

Against th' opposing will and arm of
Heaven

May never this just sword be lifted up;
But for that damn'd Magician, let him be
girt

With all the grisly legions that troop
Under the sooty flag of Acheron,
Harpies and Hydras, or all the monstrous
forms

'Twixt Africa and Ind, I'll find him out,
And force him to restore his purchase
back,

Or drag him by the curls to a foul death,
Curs'd as his life.

Spi. Alas! good venturous Youth,
I love thy courage yet, and bold emprise:
But here thy sword can do thee little
stead;

Far other arms and other weapons must
Be those that quell the might of hellish
charms:

He with his bare wand can unthread thy
joints,
And crumble all thy sinews.²³

E. Bro. Why, prithee, Shepherd,
How durst thou then thyself approach so
near,
As to make this relation?

Spi. Care and utmost shifts,
How to secure the Lady from surprisal,
Brought to my mind a certain shepherd
lad,

Of small regard to see to, yet well skill'd
In every virtuous plant and healing herb
That spreads her verdant leaf to th'
morning ray:

He loved me well, and oft would beg me
sing,

Which when I did, he on the tender grass
Would sit, and hearken even to ecstasy,
And in requital ope his leathern scrip,
And shew me simples of a thousand
names,

Telling their strange and vigorous facul-
ties:

Among the rest a small unsightly root,
But of divine effect, he cull'd me out;
The leaf was darkish, and had prickles
on it,

But in another country, as he said,
Bore a bright golden flower, but not in
this soil:

Unknown, and like esteem'd and the dull
swain

Treads on it daily with his clouted shoon;

²³ "Not by might, nor by power, but by my Spirit, saith the Lord."—In our contest with the enticements of vice and sin mere physical means and physical prowess are of little value. We must look higher for the strength and wisdom which shall enable us to conquer. There are weaknesses and infirmities in our own nature which must be offset and corrected or they will help the evil powers without in their attack upon our integrity. Strong selfish properties must be restrained by active spiritual and religious feelings, and these must be cultivated by practices akin to their nature, to bring them up to that state of exercise which shall render their influence controlling.

And yet more med'cinal is it than that
Moly²³

That Hermes once to wise Ulysses gave ;
He called it Hæmony, and gave it me,
And bade me keep it as of sovereign use
'Gainst all enchantments, mildew, blast,
or damp,

Or ghastly furies' apparition.

I pursed it up, but little reckoning made,
Till now that this extremity compell'd :
But now I find it true : for by this means
I knew the foul enchanter though dis-
guised,

Enter'd the very lime-twigs of his spells,
And yet came off : if you have this about
you

(As I will give you when we go), you may
Boldly assault the Necromancer's hall ;
Where if he be, with dauntless hardihood
And brandish'd blade, rush on him, break
his glass,

And shed the luscious liquor on the
ground,

But seize his wand : though he and his
cursed crew

Fierce sign of battle make, and menace
high,

Or, like the sons of Vulcan, vomit smoke,
Yet will they soon retire, if he but shrink.

E. Bro. Thyrsis, lead on apace, I'll fol-
low thee,

And some good angel bear a shield be-
fore us.

*The scene changes to a stately palace, set
out with all manner of deliciousness : soft
music, tables spread with all dainties.
Comus appears with his rabble, and the
Lady set in an enchanted chair, to whom
he offers his glass, which she puts by, and
is about to rise.²⁴*

Com. Nay, Lady, sit ; if I but wave this
wand,

²³ It was by means of a plant called Moly that Ulysses is made proof against the charms and drugs of Circe. It is thus described by Ulysses himself : " It was black at the root, and its flower was like unto milk, and the gods called it Moly ; but it is difficult for a mortal man to take up ; but the gods can do everything." To what plant reference is made modern botany does not reveal.

²⁴ "The Enchanted Palace." The Lady is here brought to the trial, the result of which is to be a Virtue or a bane. How she passes through it and triumphs is magnificently described. . . . Shacked by circum-

Your nerves are all chain'd up in ala-
baster,

And you a statue, or as Daphne was
Root-bound, that fled Apollo.

La. Fool, do not boast,

Thou canst not touch the freedom of my
mind

With all thy charms, although this cor-
poral rind

Thou hast immanacled, while Heaven
sees good.

Com. Why are you vex'd, Lady ? why
do you frown ?

Here dwell no frowns, nor anger ; from
these gates

Sorrow flies far ; see, here be all the
pleasures



COMUS OFFERING THE CUP.

That Fancy can beget on youthful
thoughts,

When the fresh blood grows lively, and
returns

Brisk as the April buds in primrose-
season.

And first behold this cordial julep²⁵ here,
That flames and dances in his crystal
bounds,

stances over which she has no control physically, her mind is still free, and strengthens to resist her ruthless foe and defeat all the arts of sophistry, and luxurious enticement, the cunning blandishments and complements of Comus, or the lower senses. The lady, unlike Eve, refuses to eat the forbidden fruit, and foils the tempter by his own weapons and confession—"none but good men can give good things."

²⁵ This "cordial julep," from an Arabian word meaning to drink, had come to mean only a bright medical liquid syrup or a sugar liquid or essence.

With spirits of balm and fragrant syrups
mix'd :

Not that Nepenthes,³⁶ which the wife of
Thone

In Egypt gave to Jove-born Helena,
Is of such power to stir up joy as this,
To life so friendly, or so cool to thirst.
Why should you be so cruel to yourself,
And to those dainty limbs which nature
lent

For gentle usage, and soft delicacy ?
But you invert the covenants of her trust,
And harshly deal, like an ill borrower,
With that which you received on other
terms,

Scorning the unexempt condition
By which all mortal frailty must subsist,
Refreshment after toil, ease after pain,
That have been tired all day without re-
past,

And timely rest have wanted ; but, fair
Virgin,

This will restore all soon.

La. 'Twill not, false traitor,
'Twill not restore the truth and honesty
That thou hast banish'd from thy tongue
with lies.

Was this the cottage, and the safe abode,
Thou told'st me of ? What grim aspects
are these,

These ugly-headed monsters ? Mercy
guard me !

Hence with thy brew'd enchantments,
foul deceiver :

Hast thou betray'd my credulous inno-
cence

With visor'd falsehood and base forgery ?
And would'st thou seek again to trap me
here

With liquorish baits, fit to insnare a
brute ?

Were it a draft for Juno when she ban-
quets,

I would not taste thy treasonous offer ;
none

³⁶ *Nepenthes* is from the Greek, meaning a liquid mixture like the opiate which Helen is said to have given her husband. The ancient text relates of its power that "Whoever should drink down this mixed in a cup would not shed a tear down his cheeks for a whole day ; not even if both his mother and his father should die, or if they should kill a brother or a beloved son before his eyes."

But such as are good men can give good
things,

And that which is not good is not deli-
cious

To a well-govern'd and wise appetite.

Com. O foolishness of men ! that lend
their ears

To those budge doctors of the Stoic fur,
And fetch their precepts from the Cynic
tub,

Praising the lean and sallow abstinence.
Wherefore did Nature pour her bounties
forth

With such a full and unwithdrawing
hand,

Covering the earth with odours, fruits,
and flocks,

Thronging the seas with spawn innumer-
able,

But all to please, and sate the curious
taste ?

And set to work millions of spinning
worms,

That in their green shops weave the
smooth-hair'd silk

To deck her sons ; and that no corner
might

Be vacant of her plenty, in her own loins
She hutcht th' all-worshipp'd ore, and
precious gems

To store her children with : if all the
world

Should in a pet of temp'rance feed on
pulse,³⁷

Drink the clear stream, and nothing wear
but frieze,

Th' All-giver would be unthank'd, would
be unpraised,

Not half his riches known, and yet de-
spised,

And we should serve him as a grudging
master,

As a penurious niggard of his wealth,

³⁷ "Pulse." This word is used in allusion to peas, beans, etc. Daniel and the other three children of Israel at the court of Nebuchadnezzar chose to live simply on pulse and water, rather than on the wine and mixed food allowed them by the King ; and in health and beauty they much exceeded any of the King's household, who ate and lived in the common way of the time. *Comus'* talk is in the strain of the accomplished voluptuary—drawing ingenious and reductive pictures of luxurious life.

And live like Nature's bastards, not her sons,
 Who would be quite surcharged with her own weight,
 And strangled with her waste fertility,
 Th' earth cumber'd, and the wing'd air dark'd with plumes,
 The herds would over-multitude their lords,
 The sea o'erfraught would swell, and th' unsought diamonds
 Would so imblaze the forehead of the deep,
 And so bestud with stars, that they below
 Would grow inured to light, and come at last
 To gaze upon the sun with shameless brows.
 List, Lady, be not coy, and be not cozen'd
 With that same vaunted name Virginity.
 Beauty is Nature's coin, must not be hoarded,
 But must be current, and the good thereof
 Consists in mutual and partaken bliss,
 Unsavoury in th' enjoyment of itself;
 If you let slip time, like a neglected rose
 It withers on the stalk with languish'd head.
 Beauty is Nature's brag, and must be shewn
 In courts, at feasts, and high solemnities,
 Where most may wonder at the workmanship;
 It is for homely features to keep home,
 They had their name thence; coarse complexions
 And cheeks of sorry grain will serve to ply
 The sampler, and to tease the housewife's wool.
 What need a vermeil-tinctured lip for that,
 Love-darting eyes, or tresses like the Morn?
 There was another meaning in these gifts;
 Think what, and be advised, you are but young yet.
La. I had not thought to have unlock'd my lips
 In this unhallow'd air, but that this juggler

Would think to charm my judgment, as mine eyes
 Ostruding false rules prank'd in Reason's garb.
 I hate when Vice can bolt her arguments,
 And Virtue has no tongue to check her pride.
 Impostor, do not charge most innocent Nature
 As if she would her children should be riotous
 With her abundance; she, good cateress,
 Means her provision only to the good,
 That live according to her sober laws,
 And holy dictate of spare temperance:
 If every just man, that now pines with want,
 Had but a moderate and beseeming share
 Of that which lewdly-pamper'd luxury
 Now heaps upon some few with vast excess,
 Nature's full blessings would be well dispensed
 In unsuperfluous even proportion,
 And she no whit encumber'd with her store:
 And then the Giver would be better thank'd,
 His praise due paid; for swinish Gluttony
 Ne'er looks to Heav'n amidst his gorgeous feast,
 But with besotted base ingratitude
 Crams, and blasphemes his feeder. Shall I go on?
 Or have I said enough? To him that dares**
 Arm his profane tongue with contemptuous words
 Against the sun-clad power of Chastity,
 Fain would I something say, yet to what end?

** "To him that dares." Here we have an eloquent recurrence of the leading doctrine of the *Masque*, and of which we have already spoken on a previous occasion. It was uttered by the elder brother; now it is reuttered by the sister, with emphasis.

The maiden's moral sentiments are fired with indignation and disgust, and all her nature resents the insidious talk and lewd approaches of the conjuror. Her intellectual faculties thus inspired operate with extraordinary power, and her appeal for purity and truth is most eloquent and triumphant in its reasoning against the sophistry of vice.

Thou hast not ear, nor soul, to apprehend
The sublime notion and high mystery,
That must be utter'd to unfold the sage
And serious doctrine of Virginity,
And thou art worthy, that thou should'st
not know
More happiness than this thy present lot.
Enjoy your dear wit, and gay rhetoric,
That hath so well been taught her daz-
zling fence,
Thou art not fit to hear thyself convinced ;
Yet should I try, the uncontrolled worth

Of this pure cause would kindle my rapt
spirits
To such a flame of sacred vehemence,
That dumb things would be moved to
sympathize,
And the brute earth would lend her
nerves, and shake,
Till all thy magic structures, rear'd so
high,
Were shatter'd into heaps o'er thy false
head.

(To be continued.)

A FEW STRAINS OF SEVENTEENTH CENTURY SONG.

LOOKING back to the merrie old
England of two hundred years ago,
we find adorning the seventeenth century
a galaxy of brilliant names, of which later
years have not produced the like—Shake-
speare ; "rare Ben Jonson" ; Bacon, "the
wisest, brightest, meanest of mankind" ;
Milton, bard of Paradise ; and Dryden—all
names that might well form an important
epoch in any nation's literature. Not
upon these alluring mountain heights of
genius will we wander to-day, but in
yonder sunlit valley pause to pluck the
sweet and loved wild flowers that blos-
somed two centuries ago into the immor-
telles of song.

When loosed from uncongenial clerical
duties, Robert Herrick could give voice
to the exquisite lyrical fancies that filled
his brain. There burst forth songs so
tenderly gay, fantastic, and sparkling,
they have sung their way into every
melody-loving heart. Happy hours spent
the poet with choice companions, among
them "rare Ben Jonson." "Ah! Ben,"
he exclaims, as the memory of those
happy days rise before him :

"Each verse of thine
Outdid the meat, outdid the frolic wine."

Evidently our poet practiced what he
preached in his beautiful little poem, the
first verse of which has been so often
quoted :

"Gather the rosebuds while ye may,
Old Time is still a-flying ;
And this same flower that smiles to-day,
To-morrow will be dying."

A certain fair Julia evoked several
dainty love-songs, whose language is a
delight to the world of lovers :

"Some asked me where the rubies grew,
And nothing did I say,
But with my finger pointed to
The lips of Julia.

"Some asked how pearls did grow and where,
Then spake I to my girl,
To part her lips, and shew me there
The quarelets of pearl.

"One asked me where the roses grew,
I bade him not go seek ;
But forthwith bade my Julia shew
A bud in either cheek."

What a charming little conceit is this :

"Cherry ripe, ripe, ripe I cry,
Full and fair ones—come and buy ;
If so be you ask me where
They do grow ?—I answer : There,
Where my Julia's lips do smile—
There's the land, or cherry-isle ;
Whose plantations fully show
All the year where cherries grow."

Of the fair English violets, flower loved
of poets, he quaintly sings :

"Y' are the maiden Posies,
And, so graced,
To be placed
'Fore damask roses.

"Yet though thus respected,
By and by
Ye do lie,
Poor girls, neglected."

From the works of the dramatist Jon-
son have been culled several of his minor
poems, as graceful as those of Herrick's,

although the beauty of his lady love is not so richly painted. To Celia he writes :

"Drink to me only with thine eyes,
And I will pledge with mine ;
Or leave a kiss but in the cup,
And I'll not look for wine."

Here is the ideal sweet simplicity and beauty unadorned that the poet sings, the artist paints, and man adores in theory, but snubs in practice :

"Give me a look, give me a face,
That makes simplicity a grace ;
Robes loosely flowing, hair as free ;
Such sweet neglect more taketh me
Than all th' adulteries of art :
They strike mine eyes, but not my heart."

The gay and gallant courtier of Charles I., Thomas Carew, produced some popular masks and poems. Among his songs are two beginning :

"Give me more love or more disdain " ;
and

"He that loves a rosy cheek,
Or a coral lip admires."

In the court of the same king was Sir John Suckling, noted for being the best bowler and card-player in all England, as well as celebrated for his wit and gallantry, which found public vent in his delightful love-songs. Poor Sir John! tradition writes against thy courtly name the unhappy word—Suicide. His "Ballad upon a Wedding" has many verses unsurpassed; in one he uses the superstition of the people that the sun dances upon Easter-day to describe the bride :

"Her feet beneath her petticoat,
Like little mice, stole in and out,
As if they feared the light :
But oh ! she dances such a way !
No sun upon an Easter-day
Is half so fine a sight.

"Her lips were red ; and one was thin,
Compared to that was next her chin,
Some bee had stung it newly ;
But Dick, her eyes so guard her face,
I durst no more upon them gaze,
Than on the sun in July."

Another unfortunate in love and war, in life and death, was Richard Lovelace. That he kept a brave heart and sang behind his prison-bars, is evinced by his

poem written, when in durance vile, to Althea. The last verse is a familiar one :

"Stone walls do not a prison make,
Nor iron bars a cage ;
Minds innocent and quiet, take
That for an hermitage :
If I have freedom in my love,
And in my soul am free,
Angels alone, that soar above,
Enjoy such liberty."

On going to the war, in which he received a wound, he excuses his absence to his lady-love Lucasta in a poem that closes with this oft-quoted verse :

"Yet this inconstancy is such
As you, too, shall adore ;
I could not love thee, dear, so much,
Loved I not honour more."

Alas for the poet's devotion ! The lady heard false tidings of her lover's death from his wounds, and when he returned to his native land it was to find Lucasta the wife of another.

Still another court favorite, and one who also knew life from behind the bars, was Edmund Waller, whose life has been termed more romantic than his poetry. He lived to woo the muse when an octogenarian. His "Go, lovely Rose," is a song that has been much admired. In the lines "On a Girdle," with all a lover's earnestness he exclaims :

"Give me but what this ribbon bound,
Take all the rest the sun goes 'round."

What a picture of placid contentment we have given us by William Byrd :

"My mind to me a kingdom is ;
Such perfect joy therein I find
As far exceeds all earthly bliss
That God or nature hath assigned ;
Though much I want that most would have,
Yet still my mind forbids to crave."

What an amount of quiet happiness he pictures in the final verse, with which we fitly close our ramble among these old gems of song :

"My wealth is health and perfect ease ;
My conscience clear my chief defense ;
I never seek by bribes to please,
Nor by desert to give offense.
Thus do I live, thus will I die ;
Would all did so as well as I."

A. L. ROCKWOOD.



THE MENTAL TREATMENT OF DISEASE.

A THOUGHTFUL observer contributes an article to the *Western Rural*, in which he considers, from the point of view of impartial medicine, the influence of the mind in producing the desired change in sickness. We copy the greater part of the article, as follows :

"In the treatment of the sick, as in all other matters, bigoted attachment to one peculiar system of cure has led to almost all the mischief wrought by a perverted system of treatment. An extended knowledge of human nature leads us all to find out the accuracy of the old adage, 'what is one man's meat is another's poison.' Esculapius, the reputed founder of the botanical system, found in the vegetable kingdom many products eminently qualified to correct certain disorders of the frame—Paracelsus finding virtues among minerals, while Mesmer and his followers discover in animal magnetism a more potent agent than any to be met with outside the human frame. Man is made up of mineral, vegetable, and animal elements, and it is surely not absurd to surmise that there are conditions of the system when the mineral elements are somewhat lacking, while other states of body give evidence of an insufficiency of the vegetable. Great specialists have found a remedy for a certain class of disorders which have been brought under their especial notice; they have found it to work admirably in the relief of many

patients similarly afflicted. But, as almost identical symptoms in different persons may arise from widely differing causes, it is a deadly mistake to suppose that any one system of treatment will be found successful in all cases. In Italy, the practice of bleeding has never been abolished, and though less in vogue now than a century ago, it is still practiced to a considerable extent by the native doctors. Warm-blooded Southerners oftener suffer from fevers than inhabitants of colder climates, and as a loss of blood often reduces fever, a lowering system of treatment is frequently applicable to the rich, full-blooded natives of the sunny South.

"But whether drug or mineral medication, or letting blood be the means employed, a great danger frequently attends the use of any supposed remedies which, while they may afford an outlet for disease, do not introduce a health-giving element into the weakened system. In the practice of surgery, anæsthetics are almost universally employed to deaden sensation, because by quieting the nerves and rendering the patient oblivious to the operation, a large amount of vitality is spared which would otherwise be exhausted by nervous apprehensions. A far greater number of persons die from the fear and nervousness attending an operation than from the effects of the operation itself. Such anæsthetics as ether,

chloroform, nitrous oxide gas, etc., are inestimable boons to the surgeon and the patient; but great danger often attends their administration, so that many dentists will not allow their patients to take laughing-gas if there is the least reason to fear that the heart is affected.

"Mesmerism, which has of late triumphed so signally in various parts of this country, is, without doubt, destined to be the one all-prevailing curative agent of the future, because it includes within itself all the elements of cures common to all other forms of treatment respectively and collectively. A healthy mesmeric operator is a man who generates and dispenses a superabundance of vital force which he can communicate to his patients in the form of subtle, invisible vapor. This vitality is the very essence of life itself, and partakes necessarily of all the attributes of the human system. When, by its infusion through the pores, the patient falls asleep, he is, as it were, intoxicated with an excess of life. The stupor induced does not, therefore, simply prevent suffering, it regenerates and strengthens the entire system, and hence neutralizes the wasting attendant upon the performance of an operation. Far beyond the physical results of magnetization, should be placed the moral. Numerous experiments have shown that morbid appetites have been corrected by mesmeric or magnetic influence. Without endeavoring to treat the subject, that crime is a disease, from an abstract standpoint, we think all anthropologists will bear us out in our assertion that a debilitated and perverted state of body is frequently attended by criminal proclivities; that drunkenness and almost all forms of immorality are in many instances traceable to physical degeneracy, as well as to lack of will-power and moral stamina. It is far easier to lead a correct life in a healthy body than in an unhealthy one. A sickly community, as a rule, is not a moral one. A controversy may of course arise as to whether immorality is the parent of physical disorders or whether bodily ailments give rise to moral de-

pravity. The truth, no doubt, lies in a wise harmonization of the two theories. The mind affects the body, and in turn the body affects the mind. It is universally conceded that certain diseases are infectious. No one calls in question the Biblical statement that 'evil communications corrupt good manners.' The world has yet to vividly realize that good health is catching, and that good communications destroy evil habits. Our own opinion certainly inclines to belief in the absolute power of mind over matter. We see it demonstrated every day that intelligence is the ruler of all material things—the mind of man being increasingly able to subject even the elements to itself. Thus, perhaps, we may find that the metaphysician's idea of healing by spiritual or divine power, may be the soundest after all. We have heard recently of wonderful cures wrought in answer to prayer. We have read marvellous accounts of the triumph of faith in these days, recalling to our minds many passages of what is called 'holy writ,' which declares faith to be the power that maketh whole.

"But what is prayer, and what is faith? These are questions which the present age has to answer unless mankind is to lose all faith in the efficacy of these time-honored agents. We think scarcely any one need differ with Montgomery's beautiful and rational definition of prayer, where he, in one of his sublime religious poems, styles it

" 'The soul's sincere desire
Uttered or unexpressed.'

"A desire is an effort of the will, a sincere desire, an earnest effort of the will. This definition of prayer by a much-admired poet, gives us the very clew we need to a solution of the mystery of the healing efficacy of prayer. We may leave it to theologians to settle among themselves the purely theological differences which may arise on this question; but for our purpose, the sincere desire of the mind will answer perfectly as an explanation of the mystery we have set ourselves

to consider and which we hope some day to unravel. Will-power may be weak in me and strong in some friend of mine. He may, by his stronger will, extricate my weaker will from its temporary imprisonment in a body which it is little able to control, and by thus arousing my dormant energies, may be at once my healer, and at the same time only the means employed by nature in arousing my own will to heal my own body. Thus my faith, or will, makes me whole; but it could not have done so under prevailing circumstances except at another's instigation.

"Faith is induced by a variety of causes. We can not all believe just as we would. Faith rests upon evidence, and thus it needs a force sufficiently strong to convince one of its reality and potency before we can derive any benefits from the exercise of faith. We instinctively believe in some persons and disbelieve in others—entire strangers in whose favor we have heard nothing and against whom nothing ever prejudiced us. The *rationale* of this phenomenon seems to lie in the fact of our being incessantly worked upon by the subtle and invisible forces emanating from persons around us, quite independent of our previous beliefs or knowledge. If a whiff of cold air enters an apartment, you feel it instantly without being able to trace it at once to its source. If there is fire in our vicinity, we feel its warmth. It is just so with mental and magnetic impressions. They reach us where we are when we neither solicit nor expect them—often when we would fain avoid them. These induce confidence or distrust in us toward the individuals from whom they emanate. They are to us attractive and repellant currents of magnetism respectively. This being true, we are led to infer that your physician must be pleasant to you; one whose personal sphere is attractive, and for whose step you eagerly listen. A physician who is disagreeable to you may be extremely pleasant to some one else, while one whose presence you enjoy, may be quite repulsive to your neighbor.

"As the nervous condition of the patient must always be carefully watched, as nothing retards recovering so effectually as unpleasant excitement, it is above all things essential that all in attendance upon the sick should be persons whose presence is agreeable to the invalid. We do not wish to convey the idea that an educated physician's knowledge of the art of medicine goes for nothing,—we do not wish to disparage the triumphs of learning. But as purely physical remedies constitute the stock in trade of many a learned practitioner, and as a majority of modern ailments are originally mental or nervous maladies, curable only by such remedies as reach the mind, we believe in the necessity of investigation, and wherever practicable, of applying the subtle agent known by the modern appellation of animal magnetism.

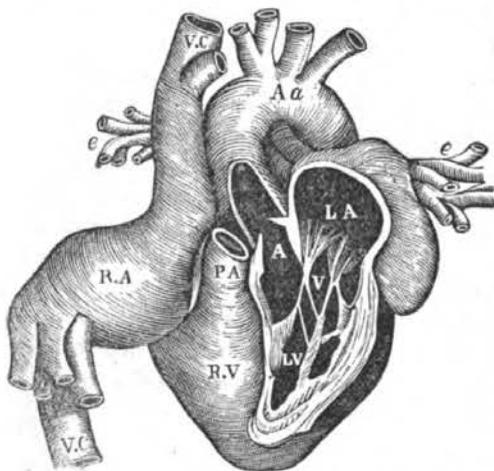
"Let persons say what they will of imagination. Let them, if they choose, attribute to fancy all that we claim rests upon a solid basis of fact. What matters it? When persons are ill they wish to get well; their friends wish them to recover, and if even purely imaginative remedies restore the sick to health, let us give some time to a consideration of the uses of imagination."

A HINT ON BATHING INFANTS.—In preparing warm baths for infants, great care should be taken not to have the water too hot. A lady remarks on this subject: "When my child was sick one night the doctor ordered the hot bath. The lady who was with me got the water ready, and said it was all right. Just as she was going to put the child in I said, 'Put your elbow into the water first.' She did so, and found it altogether too hot. In washing young children the water that is agreeable to the hands may not be so to the flesh that is kept covered with clothing. Babies are frequently tortured, and even injured, by giving them a bath in water that is much too hot."

THE HEART—ITS STRUCTURE, FUNCTION, AND DISEASES.

TO become familiar with the external appearance of the heart it is only necessary to go into the market and ask of the butcher to be shown a veal's heart. The normal human heart weighs, on an average, about ten ounces; the clenched fist is a near approximation to its size.

The heart is situated in the chest, mostly to the left side. It can be located more accurately as follows: With a crayon draw on the body a line one inch to the right of, and perpendicular to, the breast-bone, beginning at the bottom of the second and ending at the top of the



VIEW OF THE HEART AND LARGER VESSELS.

R. A., Right Auricle; L. A., Left Auricle; R. V., Right Ventricle; L. V., Left Ventricle; V. C., above, Superior Vena Cava; V. C., below, Inferior Vena Cava; P. A., Pulmonary Artery; A., Aorta; A. a., Arch of the Aorta; V. Valves between Left Auricle and Left Ventricle—the walls of the heart being cut away to show their disposition.

sixth rib. From this point draw a line eight inches to the left, marking the top of this rib. Now connect the lines here indicated by a diagonal line. By this a triangle is formed on the chest. In this space, within the chest, the heart is normally located. Watch the apex of this space or lay the hand upon it. In a spare person, erect, it will appear every second, or oftener, as though the chest-wall started up as if from a blow within. This is the apex beat of the heart.

Its deviation from this space would be

quickly noticed by an observant physician, who, by this circumstance, would immediately suspect some marked abnormal condition. To the base of the heart are attached the great arteries and veins of the body. The junction of these form exceedingly tough fibrous rings, into which the muscular fibers of the organ are inserted. Covering the heart and about two inches of the great vessels is a membrane called the pericardium. This is really a sack; its inner surface is very smooth and secretes a fluid, whose office doubtless is to diminish the friction necessarily arising from the movements of the heart. Already it has been pointed out that the heart is double; its halves are called the right and left sides of the heart. Each half of the heart is divided into two compartments, placed one above the other; the upper of these spaces is named the auricle, the lower the ventricle. Each of these divisions of the heart will contain about two fluid ounces. They are placed side by side, and are termed right or left, as they are in either side.

THE HEART'S FUNCTION.

Into the right auricle the blood from all the veins of the body but one is poured. Into the left auricle the blood comes, by the pulmonary veins, from the lungs after its renewal. From the auricles the blood passes into the ventricles. From the right ventricle the blood is forced through the pulmonary artery into the lungs for a fresh supply of oxygen. This it receives from the air. From the left ventricle the blood is forced into the aorta, the largest artery in the body, from whence it finds its way through the whole system and back again into the right auricle by way of the veins. The arteries are elastic tubes. They are constantly full of blood. This makes the work of the left ventricle much the hardest, and its walls are much thicker and more powerful than those of the right ventricle. The lining membrane of the

heart, the endocardium, is continuous with the lining of the arteries and veins. Doublings of this membrane form flood-gates—valves—between the various divisions of the heart; and at the exit of the large arteries in the ventricles tendinous cords extend from the walls of the heart to the ventricular surface of the valves. These cords are evidently intended to act in a similar manner to the stay-ropes of a sail. In the large arteries the valves are disposed in semi-circular folds. These float with the incoming stream of blood, but are at once caught when the current sets back to the heart and effectually close the vessel. The valves of the heart are quite comparable to those of a pump. By this their importance is best shown, for all must know that the efficiency of a pump depends almost exclusively on its valves. By placing the ear over the region of the heart certain sounds are heard. Thin chest walls naturally render these more audible. Alterations in these sounds of a permanent character indicate change in the structure of the valves—roughening or insufficiency. On the under side of the wrist the pulse is best felt. It can, however, be felt wherever an artery approaches the surface of the body. This event is due to the passage of more blood into the already full arteries. The heart and circulatory apparatus is very intimately connected with and under the influence of the nerves. This is shown especially well by the blushing cheek; it is also shown by the well-known effects upon the heart of joy, fear, sorrow, hate, and rage.

THINGS TO BE AVOIDED.

There are many circumstances and substances as well that affect the heart injuriously. These ought to be generally known; but mere possession of this knowledge manifestly can avail nothing, while the judicious application of useful facts may spare many much suffering and prolong some useful lives.

The point first worthy of notice here is the effect upon the heart of undue haste

in the ordinary operations of life. Running up and down stairs, running for cars or boats, and all similar performances, are grand follies, and suicidal to individuals with lame hearts, especially if that lameness be of the valve. All inordinately violent muscular exercise is equally injurious. Boat-racing, batting, and sledging are all accompanied by very violent muscular contractions, which increase the labor of the heart manifold. It is worthy of note just here that certain amounts of the occupations just named are very useful, but care must be taken not to go beyond a certain line, the location of which every one ought to know for himself. Alcohol and tobacco are heart poisons. It must be borne in mind, however, that the way in which the alcohol is used has much to do with its effects. The persistent intemperate use of alcoholic drinks over-stimulates the heart, and weakens the blood-vessels. Very grave events, plainly. Aconite is also a very powerful heart poison, in ignorant hands. Chloroform has long been reckoned a heart poison. That deaths occasionally occur during the inhalation of this agent is well known. Some recent observers contend, however, that this untoward event was because an insufficient amount of the drug had been used. The venom of many serpents is an exceedingly active cardiac poison, and when persons are poisoned by it, it is usually owing to this action and coincident alterations of the blood.

DISEASES OF THE HEART.

Enlargement of the heart is a common abnormal condition, obstructions in the course of the circulation, especially the kidneys, being at times instrumental in the causation of this trouble. The throbbing of an enlarged heart is sometimes quite annoying by its violence. If along with an enlarged heart there be weak blood-vessels, it is plain that a break is quite possible. This will be followed by results of greater or less gravity, according to the location of the broken artery. A good proportion of the sudden deaths

said to be due to heart disease, are in all probability due to the breaking of an artery in the brain. Dyspeptic persons often imagine that they have heart disease, and it is quite true that palpitation—irregular action—of the heart is a very usual coincidence of indigestion. An impoverished condition of the blood conduces to palpitation of the heart.

Affection of the valves of the heart is the form of heart trouble most to be dreaded. This affection arises usually from extraordinary muscular efforts, or in the case of acute rheumatism of the joints. The gravity of this condition must now be sufficiently plain. Individuals so affected may, however, prolong their lives much by correct habits. Dropsy is also a result of certain heart troubles; this is explained readily enough. Suppose the heart becomes weak and can not efficiently do its work, what is there more natural than that the blood should settle in the extremities, the feet in particular? Pain, probably neuralgia, of the heart is a very distressing affec-

tion; some cases of it are, however, quite curable. An abundance of good food and sleep, and everything else that is wholesome for the body generally, is equally useful for the heart. Working or sleeping in insufficiently ventilated apartments impairs the blood, and this in its turn quickly deranges the heart.

POISON IN POTATOES.—An exchange says admonishingly; "No person should buy their potatoes of grocerymen who let them stand in front of their stores in the sun. Long exposure to the light, without the direct sun, will develop the solanine in the potato, and make an article unfit for food. But exposure to the sun is so injurious to the potato, making it not only unpalatable, but actually injurious to health, that any grocer for the offense of selling potatoes which have been exposed two or three days to the sun ought to be indicted for selling unhealthy and dangerous human food."

HOW HE DIED OF STARVATION.

"SO Jones is dead?" said one Somerville man to another.

"Yes, poor fellow, he's gone."

"What did he die of?" inquired the first speaker.

"Starvation," was the answer.

"Starvation! Good gracious, the man was worth \$50,000."

"I know that; nevertheless, he died of starvation. I'll tell you how it was. Jones was always fancying that there was something the matter with him; so he went to a doctor one day and had himself examined and the doctor informed him that he had kidney disease, and that besides taking medicine he must diet himself. Said the doctor, 'You must avoid all kinds of salt meats, salt fish, potatoes, cabbage, and vegetables of every kind.' Jones followed the advice, but found himself no better. He went to another doctor, and after being examined was informed that

he must avoid all kinds of fresh meats also. This did not do him any good, as he thought, and he went to another doctor, who highly approved of the advice which had previously been given, and further warned him against all kinds of pastry, likewise shell-fish, including oysters and clams. 'The best thing for you is a milk diet,' said the doctor; so Jones lived wholly upon milk. Not feeling himself any better he went to another doctor, who cautioned him to avoid milk above all things if he wanted to get well. This reduced Jones to a diet of cold water and fresh air, and finding himself no better under this regimen he went to another doctor, who advised him to beware of drinking too much water and being too much in the air. This last advice cut off the last of Jones' articles of diet, and he died of starvation, as I have told you."

NOTES IN SCIENCE AND AGRICULTURE.

Further Testimony on the TOBACCO HABIT.—Dr. G. Decaisne has had in his charge thirty-eight youths, from nine to fifteen years of age, who were addicted to smoking, and has made known some interesting results concerning the effects of tobacco upon these boys. The extent to which tobacco was used varied; and the effects were of course unequal, but were very decided in twenty-seven cases. With twenty-two of the boys there was disturbance of the circulation, palpitation of the heart, imperfect digestion, sluggishness of intellect, and to some extent a craving for alcoholic stimulants. Twelve patients suffered from bleeding of the nose; ten had constant nightmare; four had ulcerated mouths; and one became a consumptive. The symptoms were most marked in the youngest children, but among those of equal age the best fed were least affected. Eleven boys stopped smoking, and were cured within a year.

Home-made Apparatus.—Dr. Pyburn gives some good suggestions to those who are inclined to scientific work, but have little means. "Some people conclude that, if they can not possess a first-class instrument of this or that kind, they are better off without any; but a moment's consideration will show the fallacy of this conclusion, and that, on the contrary, even a very poor instrument of observation or precision, or generally of research, in aid of the senses—be it telescope, microscope, spectroscope, balance, thermometer, chronometer, or chemical reagent—is vastly better than none. We have but to remember the great strides made in the acquisition of knowledge by the aid of the very imperfect first-forms of every instrument which has been invented, to be assured of this. Moreover, reflect!—so far as vision is concerned, men, on an average, without instrumental assistance, are inexorably kept at a distance from 'things' of ten inches, and must view them under the angle thence subtended. But the use of a simple lens of two and a half inches focus annihilates three-fourths of this distance, quadruples the angle of vision, and enables us to see objects only one-sixteenth as large as the least we can see with the naked eye. And for some purposes a poor instrument is as good as the best: an egg or a potato gives the housewife all the advantages, in measuring the density of her brine, which she would derive from the most skillfully-constructed hydrometer, or the most accurate balance and specific-gravity bottle. Galileo, with his simple-lens telescope, saw what, perhaps, never man before saw—viz., the moons of Jupiter; and by exhibiting the partial illumination of Venus, with the same imperfect instrument, he removed one of the strongest objections raised against the heliocentric theory of Copernicus. A word to the wise is enough. To my fellow-students I

say: Whatever may be your several lines of study, get real knowledge, where possible, by seeing and handling things for yourselves; and, if you can not possess or have the use of a good instrument, do not therefore refuse the assistance of a poor one; but in all cases get and use the best you can. Rembrandt made pictures with a burned stick before ever he possessed pigment or pencil."—*Popular Science Monthly.*

Longevity in the Different States.

—A student of the reports of the tenth census has compiled a table for the Boston *Commonwealth* for the purpose of showing in what State or States one has the best chance for a long life. New Hampshire seems to him to be the favorite refuge of green old age, for he finds that one-seventy-fourth of the inhabitants are at least eighty years old. The proportion among native white males is 1 to 80, but the environment in New Hampshire seems to have been even more favorable to the preservation of life in the other sex, for the proportion among native white females is 1 in 58. Other New England States do not contain quite so many old persons, the average proportion for the six being 1 in 134. Coming to New York, he finds that for one person who has reached the age of eighty there are 161 who have not been so fortunate, and in the three Middle States the average proportion is 1 in 182. As he goes southward he discovers a greater preponderance of young blood, for in six South Atlantic States the average proportion is 1 in 203. The Gulf States afford a less attractive shelter for the aged, for the average is 1 in 300. In Texas, where so many worthy persons die with their boots on in the prime of life, only one octogenarian can be found in a group of 497 citizens. The average rises again in the interior States east of the Mississippi, but in the Great Lake States it falls to 1 in 263, a good old age being attained with the greatest difficulty in the wealthy and prosperous State of Illinois. In seven States west of the Mississippi River the aged rarely appear, for the average proportion is 1 in 453. In Iowa a crop of 334 persons yields only one who has reached the age of four-score; in Minnesota, Nebraska, and Kansas only one of these aged citizens can be found in a group that would yield two in Iowa, and in Colorado 1,150 inhabitants must pass in review before an octogenarian comes in sight. The old are even more rare in Nevada, but in California and Oregon the proportion is nearly 1 in 500. If the inhabitants of the whole country could be assembled in two hundred and twenty-seven groups, it would be possible to place at the head of each group one patriarch of eighty or more years.

Factors in Successful Fruit CULTURE.—A writer in the *Country Gentleman* fairly puts this matter, thus: "Fruit-growing

and gardening are hard work, and it is work of the brain as well as the hands. There are two things, one of which the seeker after easy jobs will find conspicuous in his experience; he will either never find such a job, or he will never amount to anything. We do not know of anything that has been the subject of more exhausting thought or harder manual labor than fruit culture. Our great pomological advancement in this country has been the result of this mental and physical toil. Success in the business requires a very intimate acquaintance with some of the most perplexing sciences, and almost every year the fruit-grower runs amuck of entirely new difficulties which he must surmount with study and persevering toil.

"The reason that pomologists find pleasure in their avocation is largely because they love to labor. They are satisfied with the rewards of their labor, and so toil on patiently, the limbs often being weary and the head often aching. Neither the orchard or the garden is any place for a lazy man, and neither is it a place for a sick man, if regard for the interests of the orchard or garden are thought of. The garden or orchard will benefit the invalid, but the invalid will not benefit either of them. It is far better for such a person to engage in general farming, for they can not stand the strain which profitable fruit culture requires. It is true that after an orchard once gets a start, and comes into bearing condition, the labor is comparatively light. But even then, as before said, there are new difficulties to be overcome, and the mind and hands will find enough to do to make industrious habits and health a necessity. But when we compare the labor of general farming to the market garden, the labor attending the former is very much less than that attending the latter. We know of no men who work harder than the market gardeners on the outskirts of our cities. They earn all they get for their fruit and vegetables, and some of the naturally tired people who think that fruit-growing and gardening are such pretty work, and easy work, would be unwilling to labor a week as these gardeners do, for all the money they receive for a season's crops."

A Small Motor Wanted.—There can be no doubt, says the *Engineer*, that the inventor who could supply in a really portable form a machine or apparatus which could give out two or three horse-power for a day would reap an enormous fortune. Up to the present time, however, nothing of the kind has been placed in the market. Gas is laid on to most houses now, and gas engines are plenty enough, yet they do not meet the want which a storage battery may be made yet, perhaps, to supply.

Development of a Garden Plant.—The chrysanthemum, which claims so much interest among horticulturists, has an unusually interesting history. In 1764 it was brought to Europe from China and planted in the Botanic Gardens at Chelsea in London, where,

however, it attracted little notice and soon afterward died out. In 1789, according to *The Gardener's Magazine*, a French merchant named Blanchard imported some plants from China to France, and the next year they found their way to England, where they were sold at a high price, and grown in a greenhouse. In 1795 there was a chrysanthemum seen in blossom in Mr. Colville's nursery in the King's Road, Chelsea. The flowers were small and of a dark purple, only half double; the petals were ragged and uneven. From 1798 to 1822 sixteen varieties were introduced from China. After that more progress was made and in one year alone (1824) twenty different sorts were imported. It was not, however, till 1830 that seed was first saved in the south of France and much finer blossoms were thus produced. In a few years' time chrysanthemums became so numerous that the old nomenclature—white clustered, aster flowered, marigold flowered, quilled yellow, tassled pink, etc.—had to be superseded as inadequate, and each was dignified with a distinct title.

The Early Rates of Postage.—Now that the two-cent postage law has gone into effect, the following provisions of the first law of Congress on the subject will probably be read with some attention:

February 20, 1792, was the first act fixing rates of postage on domestic letters, and established the following rates, to take effect June 1, 1792:

Act February 20, 1792, Section 9, by land:
For every single letter not exceeding 30 miles, 6 cents.

For every single letter over 30 miles, and not exceeding 60 miles, 8 cents.

For every single letter over 60 miles, and not exceeding 100 miles, 10 cents.

For every single letter over 100 miles, and not exceeding 150 miles, 12½ cents.

For every single letter over 150 miles, and not exceeding 200 miles, 15 cents.

For every single letter over 200 miles, and not exceeding 250 miles, 17 cents.

For every single letter over 250 miles, and not exceeding 350 miles, 20 cents.

For every single letter over 350 miles, and not exceeding 450 miles, 22 cents.

For every single letter over 450 miles, 25 cents.

For every double letter, double the said rates.

For every triple letter, triple the said rates.

For every packet weighing one ounce avoirdupois to pay at the rate of four single letters for each ounce, and in that proportion for any greater weight.

Central American Antiquities.—The United States National Museum at Washington has lately acquired a complete set of the valuable collection of casts made by the Charnay expedition to Central America, and which comprises the most celebrated relics of Mexican and Central American ruins.

This collection will prove of inestimable value to students of American antiquities; and it is understood that the fullest opportunities will be afforded to specialists in these subjects to make the most careful investigation of these ancient monuments and of their hitherto undecipherable inscriptions. It is possible that with this remarkably rich collection at the disposal of archæologists, the many problematical questions respecting the origin and history of these remarkable races, that had reared a wonderful civilization upon this continent centuries before the advent of Europeans, may be solved.

The expedition of M. Charnay, it will be remembered, was sent out with the joint aid of the French government and Mr. Pierre Lorillard, a wealthy citizen of the United States, in the year 1880, with the object of making a thoroughly scientific examination of the many ruined cities, temples and other monuments of the ancient civilization of Mexico and Central America. This work received the sanction of the governments of these countries, and was prosecuted with energy for the space of two years, with such success that the expedition returned enriched with casts and photographs of all the noteworthy monuments of these countries.

Of these valuable collections, one suite is placed on permanent exhibition in the museum at the Trocadero Palace in Paris, and a duplicate copy, as we have just noticed, in the National Museum at Washington, where it will doubtless form one of the most interesting features of that already vast storehouse of treasures. It is said to be the intention of Prof. Baird, the chief of the National Museum, to have some of the more remarkable of these relics—such, for example, as the bas-reliefs of the Temple of the Sun and those of the Temple of the Cross—mounted in such a manner as to reproduce as exactly as possible their surroundings in the temples in which they are found. This will certainly add very greatly to the interest which this remarkable collection of American antiquities must attract from all intelligent visitors to the museum.

Spiritualism to be Investigated.

—By the terms of the will of the late Henry Seybert, a rich and eccentric citizen of Philadelphia, the later years of whose life were absorbed in the vain effort to get at the truth of what is known as spiritualism, a considerable legacy (\$50,000) has been bequeathed to the University to found a professorship of Intellectual and Moral Philosophy, with the proviso that the authorities shall undertake to make a thorough investigation of the phenomena of modern spiritualism, and publish the evidence and the conclusions to which it leads. The University has accepted the bequest, and has appointed a committee of five members of its faculty to conduct the investigation. This committee comprises among its members the provost (an M.D.), and the professors of chemistry, social science, and anatomy, and a tutor, who is a clergyman.

We are doubtful that any definite result, one that will be satisfactory to the community, will be reached. The psychological complexity of the subject is much too great to be unraveled by positive methods. Mr. Seybert would have done better by leaving his money to some enterprise with an object, and that a demonstrated one.

What Makes Corn Pop.—Chemists who have examined Indian corn find that it contains all the way from six to eleven parts in a hundred (by weight) of fat. By proper means this fat can be separated from the grain, and it is then a thick, pale oil. When oils are heated sufficiently in closed vessels so that the air can not get to them, they are turned into gas, which occupies many times the bulk that the oil did. When popcorn is gradually heated and made so hot that the oil inside the kernels turns to gas, this gas can not escape through the hull of the kernels, but when the interior pressure gets strong enough it bursts the grain, and the explosion is so violent that it shatters it in the most curious manner. The starch in the grain becomes cooked, and takes up a great deal more space than it did before.

To Cure Wet Boots.—It is suggested by one who has tried it, that the following simple device will rob the cold, wet barnyard of a slushy winter or spring evening of half its promises of discomfort for the next morning: When the boots are taken off, fill them quite full of dried oats. This grain has a great fondness for damp, and will rapidly absorb the last vestige of it from the wet leather. As it takes up the moisture it swells and fills the boot with a tightly-fitting last, keeping its form good, and drying the leather without hardening it. In the morning shake out the oats and hang them in a bag near the fire to dry, ready for the next wet night; draw on the boots, and go happily about the day's work.

Suggestions on Making Farm Roads.—On one's own private property much can be done to make good roads at less than the cost or trouble often supposed. If no more, a ditch can be ploughed along on each side to carry off the water, and the soil somewhat rounded will still more assist the water to drain away. These ditches can be cleaned of leaves when the trees have become bare, and the material, as a fertilizer, will pay for itself. Very often there is stone on the property, which it will help mowing or cultivating to rake from the surface, and thus the road can be made with the material without cost to the road, and with benefit to the land.

In places where the land is entirely free from stone, brushwood can be used. This laid on the road before the ditches are cleaned out, and afterward the ditch soil thrown on it, makes a fair road-bed; not, of course, equal to stone, nor so lasting; but it will be found to pay well for the trouble, especially if the road-bed be made high, so that the water can pass readily away.



CHARLOTTE FOWLER WELLS, *Proprietor.*
 H. S. DRAYTON, A.M., M.D., *Editor.*
 NELSON SIZER, *Associate Editor.*

NEW YORK,
 JANUARY 1884.

A SALUTATORY.

THE reader who has accompanied us in our monthly course of the past year needs scarcely to be reminded concerning the nature of our work; but to him who comes to the pages of the PHRENOLOGICAL as to pastures new, it may be well to address a few words explanatory of the purposes we have in view, and which are as fresh in their outlook and as tenaciously held within our mental grasp as they were forty years ago when the magazine was a stripling. Generally speaking, the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH considers man as a whole, but its special province is to consider his mental relations. This the reflecting reader will say is a field broad enough for one magazine, and we are ready to accept the opinion.

The tendency of our era is toward differentiation, the natural result of increased knowledge, it being found by the students of science that it is impossible for an individual, no matter what may be his powers of intellectual apprehension, to study one general subject in all its parts and applications. Were there capacity, there would not be time enough to pur-

sue the endless details which open before the earnest examiner of nature. Hence, if thorough work is to be done, there must be specialties; and if these specialties are pursued in a generous spirit, with no bickerings or jealousies or invidiousness, there must accrue very considerable additions to the common stock of information.

There are workers in the field of mental physiology who now and then glean some new fact which is important; but progress in mental science is slow. What is now known with respect to brain structure and the inter-relation of mental phenomena and physical states, shows the subject to be one of great complexity. Phrenology reduces the data of mind to a few simple principles; but in their myriad applications these principles show their truth and beauty only when employed by the trained analyst.

Phrenology, as it comes within the purview of this magazine, has to do chiefly with character—to explain the how and why of talent and disposition—to indicate the organic sources of the humors and caprices, hopes and fears, passions and sentiments of the social farrago that surrounds us. The average man or woman is a bundle of incongruities; at one moment grave and reflecting, at another gay and frivolous; now beaming with kindness and affection, then cold and indifferent; at one moment stern and mandatory, at another feeble and cringing; to-day resolute and aspiring, to-morrow vacillating and motiveless. Philosophy may spin out a long theory in the attempt to resolve these contrary phases of character, but we fail by her means to reach a practical result—a well-defined formula which shall serve as a key to unlock the mysteries of such phenomena so that

we shall have no doubtful understanding of them. Philosophy can not point us to data upon which we can lean with confidence as tangible evidences of the truth of her reasoning. Phrenology says at the first, structure, organization, is correspondent with character; according to the development and exercise of a faculty, so is the development of its organic part, and in the brain must one look for the organic co-ordinates of the mental faculties. The average man is largely influenced by his surroundings: they play upon his different mental organs according to their nature for the time being, and elicit the responses seemingly so incongruous. There are shades of difference, however, in the conduct of average men in similar circumstances. You have but to look attentively at them to see the unlikeness, and then you have only to look at the brain structure, as shown by the form of the head, to obtain a good idea of the "why."

Consider the two kings—George III. of England and Louis XVI. of France—both willful men, lacking in reflection, untrustworthy in judgment; the one, however, arrogant, obstinate, treacherous; the other weak, timid, reticent. Intellectually there was much similarity—both possessing a great preponderance of the observing organs, the reasoning elements being small. They were both quick in acquiring knowledge relating to natural objects, and had excellent memories, but were slow to comprehend the principles of government, the philosophy of civil rights, the logic of duty as kings and rulers. They found pleasure in the contemplation of things, while ideas and thoughts were unpleasantly burdensome. Then, too, the English monarch loved to indulge his appetite, and to exercise his caprices

arbitrarily. Temperament and organization in his case show the type of character distinctly. The French king was of sluggish habit, fond of mechanical pursuits, inclined somewhat to economy, and rather indifferent to the comforts and pleasures of court society. His head shows why—it is low in the crown, broad in the region of the temples, and narrow toward the back part; while the English king's is cone-like in the crown, broad in the region of the ear, and heavy in the back part.

The consideration of the principles of organic growth includes the relations of training to mental development. This is a most important department, involving as it does so much of practical utility to the world. Birth is a great deal, but it is secondary to education in the final evolution of character. The best inheritance of faculty and power may be ruined early by improper training and perverse uses; while a poor inheritance of faculty may, by judicious culture and wise uses, be raised to a high degree of activity and power. The most successful men, the men who command the respect of society to-day, owe their advancement as a class not to high endowments which were born with them, but rather to fortunate associations in childhood and youth—to influences which brought into play the better qualities of their nature and supplied them with motives of a noble kind. An average endowment allied to good habits, pure purposes, and a good degree of patient industry, will help a man or woman up the ladder of life. What a man's education should be, what habits he should form and what purposes he should entertain, are among the topics specially treated in these pages. We aim to show how a person's organization in itself suggests

the mode of training suited to the correction of its defects and excesses, and to the production of a better condition of symmetry and harmony. This is the same old purpose which inspired the phrenologists of fifty and more years ago; and if record could be made of the influence which the teachings of the followers of Spurzheim and Combe have exerted in popular education, literature, art, jurisprudence, the management of asylums and prisons, and in the methods of business, it would be found no small matter; in fact, the principles of Phrenology have become interwoven with the best culture of the time, and have been among the stimuli which have contributed to the wonderful development of science and art.

The man or woman who is conversant with the facts of Phrenology is a believer in it. Examination leads inevitably to conviction. Candor in reading what is presented in these pages is all that the editor asks, and he gives the assurance that the reader will find before the year has passed that his candor has been richly paid by the personal benefit he has received, and he will count one more in the multitude of men and women who are better morally and intellectually because of their knowledge of Phrenology and acquaintance with the PHRENOLOGICAL JOURNAL.

"CORRECTING" THE LOCATION.

A CONTRIBUTOR to the *Western Rural* has something to say on the subject of brain function, and takes the view that the investigations of later physiologists have obtained results which, although in the main demonstrative of phrenological principles, disapprove the

location of Amativeness, Parental Love, Friendship, and Inhabitiveness, and point out other regions or centers as the true places; for instance, "Sex Love" is placed in the upper surface of the brain, a little forward of the center, Parental Love being allotted space directly below. It is argued in support of this view, that the experiments of Dr. Ferrier on the brains of animals are conclusive; that their "validity," etc., has been strongly indorsed by the most eminent physiologists in Europe and America. The writer does not appear to know that in scientific circles Dr. Ferrier's experiments are not deemed conclusive by any means, and that their subsequent reviewal by careful observers, notably Goltz and Munk, has not been confirmatory, it being found that most of the parts of the brain which he had mapped out, when subjected to galvanic irritation, did not respond in a regular and definite manner in producing muscular movements.

MM. Dupuy, Carville, and Duret hold with regard to Ferrier's announcements, that the excitement of the motor nerves is caused by the electric stimulation being conducted through the mass of the brain to the basilar ganglia, and therefore that the motor responses come from them and not from the convolutions.

Goltz and Munk tried experiments on animals to test Ferrier's conclusions. They removed the brain substance at the points designated by the London anatomist, and found that the animals, if permitted to live, recovered the functions which appeared at first to have been lost by such removal. Goltz is of opinion that the experiments do not warrant one in marking any motor centers in the hemispheres of the cerebrum, while any considerable destruction of the convo-

luted surface in both hemispheres has its effect upon intelligence. If more than an eighth of an ounce is removed from the surface of each hemisphere, the animal becomes stupid, and complete imbecility follows extensive destruction.

An article in *Mind*, published in 1880, on the experiments of Goltz and Munk, states that Goltz's experiments have overthrown the conclusions of Ferrier. We are willing to admit that there are centers of motor impulse in the hemispheres, and that they may lie side by side with the centers of psychic or volitional impulse; even as motor and sensory fibers lie together often in the same sheath—as it is but natural that the anatomical structure should show a very close relation between them, since in active life movement translates mind, makes it expressive—and therefore the mind must have its obedient servitors immediately at hand, if its will is to be executed with instant facility.

We must wait, however, for further light upon this subject; at present our verdict with respect to the motor centers is *not proven*.

As regards the change of location of the organs noted above, we can not accept it upon so little evidence, while a vast burden of testimony appeals to our reason in favor of the old mapping. The Carib and negro are remarkable for their manifestation of parental sentiment, and the indication of brain development in the lower occipital region is pronounced in correspondence with that quality. The Carib has a low head centrally, so has the negro.

With regard to Amativeness, the great majority of cases in which the expression of the propensity is very marked, including its brutalized manifestation in the

undeveloped and vicious classes, show its development at the lower back-part of the skull to be large, and in the same classes the flattening or depression of the skull in the middle superior region is undeniable. Prof. Dalton is of opinion that the sexual instinct is situated in the neighborhood of the cerebellum. Profs. Benedikt of Berlin, Broca and Dr. De-Launay of Paris, and many others who have given attention to the structure of the skull and brain in its relation to classes of society, are clear in their opinion that the head of the criminal and vicious shows a predominance of development in the lower parietal region, the intellectual part being depressed and indicative of scanty exercise. Aaron Burr, who was distinguished for his Amativeness, and also for the warmth of his social nature generally, was immensely developed in the back-head. The cast in our collection shows a moderate top-head; whereas, to bear out the view of the writer to whom we refer, his head should have been distinguished for a remarkable superior development.

THE CENTENNIALS.

FOR over eight years past our people have been celebrating centennial anniversaries of events that occurred in the days when the nation was passing through the long struggle for existence. In the North and in the South there have been days or seasons of festivity and patriotic fervor in memory of battles and sieges and surrenders and peace-making. At Lexington, Charleston, Philadelphia, Yorktown, Monmouth, Newburgh, New York, and elsewhere public enthusiasm evidenced itself by the crowded assemblage, parade, speech-making, illumi-

nation, etc. If there had been any mistrust in the minds of some with regard to a general decline of national spirit, it certainly was overwhelmingly negated by the outpouring of sentiment on those anniversary occasions. For ourselves, we contemplate with much satisfaction the greatness of the celebrations in honor of the events which signalized the establishment of peace in 1783—viz., that of Newburgh in October, and that of Evacuation Day in New York, on the 26th of November.

A very wet and unpleasant day marred and shortened the open-air ceremonies of the latter occasion. Nevertheless the people of the city, and the tens of thousands who had come from far and near to participate in the glorification, endeavored to make the best of it. Never before had such a gathering been known in the metropolis, and so much forbearance and good-nature, amid trying circumstances, was never exhibited by a thronging multitude. Take it all in all, it was a most remarkable demonstration of patriotism and of interest in the pacific solution of national troubles. We can pardon the disposition toward "spread-eagleism" which indicated itself in the talk of many at public and private dinners and in social intercourse, for the atmosphere had become surcharged with loyal ozone; but in their discussion of topics affecting the development and progress of our country, we would have had them consider more the effect that a policy of peace in the councils of government has had in promoting the public weal. The spirit of the Republic is peace; and nowhere is the truth of the maxim that Peace is "the muse of arts, plenties, and joyful births" better illustrated than in this Republic of ours.

JOURNALISTIC WONDERS.

THE intellectual organs of some journalists appear to work with remarkable facility in correlation with their ideality and sublimity, as they are very much inclined to the invention of marvelous stories, and publishing them with all the appearance of sincerity and truth; their stories, too, now and then get into circulation and pass from one medium to another as facts. The reader may remember that not long ago there was an astonishing tale going the rounds concerning the sudden carrying up into the atmosphere of a little girl by a bunch of toy balloons. The writer described with melting pathos how she clung to the cord with extraordinary tenacity, and after a time was let down safely, although very tired, in a meadow some miles away from the city where her parents lived.

The marvelous editor now and then tries his hand in the fields of science, emulating, as one may suppose, the example of Richard Adams Locke, of Moon Hoax reputation, or Jules Verne, whose capability in the line of scientific marvel almost exceeds credibility, and in his sphere he has been known to tamper with Phrenology.

Not long ago we heard of a curious story in regard to a surgical operation on a man's skull for the purpose of curing his propensity to steal. The account made free with the name of a State governor and others. Thinking it worth while to make some inquiry about the case, we wrote to one or two of the parties whose names had been given, and learned that in great part the story was the product of a wonder-loving scribbler, who had appropriated the names without warrant.

Now we have before us a clipping from the *Pittsburg Leader*, in which another remarkable tale is related. It is not written in a funny vein; it bears no mark of an attempt to impose upon the credulity of its readers; it is coherent and symmetrical, supplying many details, correct enough in their scientific application as a whole, although the writer is not technically informed on the subject with which he deals. It tells a story of an Indian belonging to an Arizona tribe, once notable for his ferocity, treachery, and cunning; how he was captured by a hostile tribe and condemned to be burned at the stake; but that there happened to be a white man in that tribe who had been a physician, but being of an adventurous turn of mind had strayed away into the wilds of Arizona and become associated with the Indians. We are told that he was an enthusiast on Phrenology, and had long wanted an opportunity for testing some of its principles; and proposed to the chief to let him experiment upon the condemned prisoner after the fashion of the vivisectioning physiologists. His proposal was favored, and he at once prepared an anesthetic which reduced his subject to unconsciousness; then removing a part of the skull bone over the organ of Combativeness, he took out a small portion of the brain at that point, and having covered his work as best he could, the captured Indian was left to himself. On awakening from his stupor, a complete change of disposition with respect to courage and resolution was evinced; in fact, his warlike nature had departed. After a while, it is said, the organ of Secretiveness became inflamed, and the Indian became morbidly suspicious of all who approached him. The experimenter then performed an-

other operation, and removed a portion of the brain from the region of Secretiveness, with the result of a complete loss of those qualities of suspicion and cunning which had been so marked previously. But inflammation supervening, certain organs higher up were disturbed; Veneration, for instance, became overexcited, and the Indian thought himself in direct conversation with the Great Spirit, and expressed an extraordinary devotional fervor. Carried away with enthusiasm on account of his great success, the semi-barbarous doctor makes a further experiment, and removes a portion of the superior convolutions, and lo! when the poor Indian captive was restored to consciousness, he was no longer the same man; his actions were stupid, he stared around vacantly, could be led like a child, was humble and obedient; the fierce and truculent savage had lost his identity, not being able to recognize friend or enemy. We are told further that he has lately been on exhibition in Pittsburg with other Arizona natives, and is expected to be shown in New York before long. We await his coming with impatience.

NEW-YEAR COUNSEL.

HOPE and trust; press on, brother;
Fear not what to-morrow has in store,
On pale regret shut fast the door,
Be thy look upward ever—
Press on, brother!

"Oh, my past!" Let go thy past!
Is it dark? Then turn thee to the light;
Mark yon radiance flashing pure and white,
While fades thy gloomy memories fast—
Press on, brother!

"So weary!" Rest thee then from strife;
Why charge thy heart with things that starve
and strain?
Thou gettest heaviness with worldly gain,
Content makes sweet the humblest life—
Press on, brother!

"My duty!" Yes, do that well,
No more 's required. Thou needest not yearn
For higher spheres. Zeal there will earn
Thy meed—and sound thy vict'ry's bell—
Press on, brother!

H. S. D.

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

IF AN INQUIRY FAIL TO RECEIVE ATTENTION within two months, the correspondent should repeat it; if not then published, the inquirer may conclude that an answer is withheld, for good reasons, by the editor.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE CONTRIBUTIONS unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal matters will be considered by the editor if this is done. Anonymous letters will not be considered.

DOMINANT PROPENSITY.—*Question:* If a person have Combativeness and Destructiveness large, would he necessarily be a desperado? Would not Reverence counteract them?

Answer: The possession of two strong elements of force like Combativeness and Destructiveness are among the most important in a robust, energetic character. Of course when these organs are predominant, and exercise a controlling influence, a person is overbold, aggressive, easily excited to anger, and runs to extremes of imprudence in injuring others. When, however, the moral organs are strong, they largely counteract and modify the action of the force elements, rendering them subservient to good purposes and noble motive. There can be no energetic goodness without a strong base of brain, and a head pretty well filled out back of the ear.

In the study of Phrenology it would be well for you to begin with a simple treatise like

"Indications of Character," or the "Self-Instructor."

CHEWING GUM.—*Question:* Would you encourage children to chew gum?

Answer: No; we do not approve the practice at all. If people must chew something, let it be a small bit of hard wood; that will be helpful in the way of assisting digestion, and also strengthening the growth of the teeth. Possibly, chewing-gum may compensate in part for the lack of hard food nowadays on most tables. The great army of dentists are sustained by the general use of soft substances for food; there must be pressure, and considerable of it, upon the tissue at the roots of the teeth, in order to stimulate their strong, substantial development. Some authorities have said that dyspepsia may be avoided by one's chewing a bit of wood after eating; that promoting the flow of saliva and compensating for the insufficient mastication of food at the table. As for chewing-gum serving a like purpose, we think it is a mistake, as the so-called gums used by children are made from substances not fit to be taken into the mouth, if not arrant poison.

MENTAL INFLUENCE.—*Question:* Can a person, by the concentration of his mental force upon another in an audience, cause that individual to become restless, and then to look toward the person who is attracting his mind for the purpose of drawing the other's attention?

Answer: We have little doubt that such an influence can be exercised by one mind upon another. It is a matter of common experience for one to say to another, "I was thinking so and so"; and that other to respond, "I was thinking of the same thing, and had you in my mind." Similar cases are not so uncommon, even where the individuals are widely separated. Some persons are endowed with a peculiar power (magnetism), which has a controlling effect to a greater or less extent upon people who possess a peculiar susceptibility or receptivity to it. This subject is very obscure; but its phenomena are now studied by many scientific observers.

SLUGGISH BRAIN.—N. L.—The condition of your brain is due to temperament, or to an inactive or diseased condition of one or more of the vital organs; possibly the liver is deranged or torpid. By modifying your diet and daily habits so that the body shall be well nourished, and the circulation of the blood improved, the brain may indicate a different state in time.

There are many conditions which enter into the consideration of the subject, and you have not given particulars enough for an inference as to the cause of your trouble. Stir about; take more note of what is going on in the world; associate with sprightly, spirited people; take care to get plenty of sleep at night, so that the nervous system shall be refreshed; and during the day be active and alert as much as possible.

GROWTH OF AN ORGAN.—W. A. T.—Yes; a man twenty-three years of age can cultivate any organ—Combativeness included—with a fair prospect of increasing its size and activity, so that in time it will be decidedly influential in his character. The indication, however, may not be adequate, seemingly, to the degree of influence so far as the exterior of the head is concerned, yet the growth will be appreciable, while the activity is marked.

SOAP IN WASHING.—X. Y. Z.—Opinions differ as regards the use of soap on the face; but we think one can use soap of first-rate quality in a moderate degree with benefit when washing the face. If we were to base an opinion upon the advertised testimonials of certain well-known soap-makers, we should say that soap contributed to beauty of complexion. Speaking from our own experience, we have used soap for years without sustaining any cuticular injury.

MEMORY.—The memory is dependent, to a greater extent than most people think, upon health. A simple derangement of the digestive organs will often disturb it, to one's great annoyance. For instance, it isn't well for one who wishes to deliver an extemporaneous address to eat heartily a short time before going upon the platform; because he will be likely to find that his ideas move very slowly; and if he wants to cull facts and figures off-hand they will be very wanting in promptness. Organs of the intellect which relate to memory grow stronger by use, but the use should be moderate. Excessive demands upon them will result in injury; their power to retain will be impaired. Crowding them with facts will be very much like overloading the stomach.



Communications are invited on any topic of interest: the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

OPINION.—*Editor of the PHRENOLOGICAL JOURNAL:*—It seems to me that each Number surpasses the previous ones in interest and instruction. The articles by Dr. Lambert

on 'The Effects of Alcohol upon the Human Body,' and also the 'Observations on Amativeness,' which have been continued in late Numbers, are highly interesting, and worthy of much thought.
C. T. H."

"AGAINST HER WILL."—A lady of New York related some of her experiences in connection with Phrenology twenty or more years, to me, and they seem interesting enough for record in your columns. She said: "I became a convert to Phrenology against my will. One evening, Mrs. Kirkham had been to our house, but her husband did not come for her as she expected, so my son and I went home with her. Mr. O. S. Fowler then boarded at the same place, and when we got there she said, 'Come, lay off your hat and let Mr. Fowler examine your head.' I replied, 'I always gave myself credit for some little common sense, but *should* not if I were so foolish as to submit my head to be examined.' Mr. Fowler said, 'You don't need to do even so much as untie the strings for me to tell you some things; for instance, you can not tell your own age, nor that of your brothers, sisters, nor even of your children.' Time is very small in my head, and had he not seen that, he would not have dared to say so. I can not tell my own age. One of my children was born on the 20th of March and the other on the 22d, but I can't tell which without looking on the record. I took a young man to Mr. Fowler for examination, because he said, 'If Mr. Fowler would tell me something that I know nobody knows, I'll believe him.' While his head was being examined I thought, Well, he doesn't tell anything true, for he said, 'You believe the Bible to be a fabrication, and have no interest in common religion.' He belonged to a religious family, and I had known him from a boy, and supposed that he was strictly observant of religious services. When we came out I said to him, 'He didn't tell you anything true, did he?' 'Yes, everything.' 'Why, he said you didn't believe the Bible.' 'Well, I hope I don't believe that silly trash. Go to Tammany Hall every Sunday and you'll hear what it is,' was his reply. He was seeking my daughter's hand in marriage, but that remark made me recoil so that I felt as if he were a snake, and could not endure to be near him afterward."

"Mr. L. N. Fowler visited my school of forty girls, and selected every one who was learning to draw, and described their ability in that line. Of one little eight-year-old girl he said, 'She plays truant, and will take things merely from the impulse to steal, even when she can't make any use of them.' I was surprised, for although she was often absent, I did not suppose she was a truant, but I afterward received a note from her mother (who lived in Houston Street) saying she feared her daughter would make me trouble by

staying away from school, and wished me to inform her whenever the girl was not there, as she learned she was sometimes absent. One day, afterward, I saw her with a parcel of something tied up in her handkerchief, and took it from her to see what she was taking away, for I knew it could not belong to her, and found it was books belonging to other scholars, and also learned she had been in the habit of taking cakes of paint and other things, useless to herself."

C. F. W.

SOURCE OF TRUE POETRY.—The poet not only has an eye for the beautiful in every material object around him, but he also possesses a faculty for the creation of beauties which lie apart from material forms having no intrinsic connection with them whatever. This faculty reaches beyond the sphere of sense, scales heights and explores depths where the faculties of sense would be as much out of place as a whale would be in the middle of a desert. That overshining existence, without material subsistence, termed the soul, is the true and only source of poetical power. A poet is poetical in proportion to his soul development. I can not agree with those who give to the brain organs of Sublimity and Ideality the sole possession of poetic power. They have their proper functions, and they discharge them well; but they must not, they can not usurp the dominions of a force superior to all the powers of the intellect combined. Those organs named may give us talent of the most susceptible quality to appreciate beauties, to work even their minutest shades, but they can not aspire to that creative principle that lies above and beyond them—out of brain dominion—within the sublime portals of the soul itself. We may find, on an average, one person, at least, in every ordinarily intelligent community with the brain faculties of feeling and beauty developed to a high degree. But among the millions of people in the United States, it would puzzle us to name twenty persons to whom we can ascribe the possession of genuine poetical inspiration—the white heat of the soul. All have souls nevertheless, but most all of them are, in the present stage, in too crude a shape to mould oracular utterances, by which alone the poet is felt and known.

Neither can the poetical gift be explained on physiological grounds. Nothing is more common than to find persons of either sex, with the cranial and physiological conditions united, which, according to popular belief, should furnish the possessor with light and heat divine in tropical abundance. But however much the lustrous eye may roll, the cheeks grow hollow, and the Byronic melancholy be importuned to come at once and come to stay, still the anxious friends are only rewarded, in most instances, with the nervous irritability of a poetical patient,

and the disgusting doggerel of a future maniac. He may get dyspepsia, "get up on his ear," get drunk, or get his friends out of patience with him, like a full-grown poet, but the inspiration of the latter he can never get.

On the other hand, it is not hard to call to mind mighty monarchs in the realms of verse, who might, with proper training, have rivaled John C. Heenan in muscular power. Burns—"Robert the plowman," "Love-sick Robin," "Social Bob," or "Ranting Rob," just as you want him—could not only write the best poetry of any man in his time, but he could out-lift, "for the drinks," the stoutest stonemason in Ayrshire. Keats, "the most poetical of all the poets," could write "Hyperion," "Endymion," "Ode to a Dead Urn," or whip a butcher, just as he saw fit. Byron could draw up from his soul-wells the finest and sweetest draughts of poetical nectar, or could "whip fellows," get fat, or swim the Hellespont at his pleasure. Rare Ben Jonson—do you think he had no flakes of fat lining his ribs, or oily chunks hung to his jaws? If so, read a description of his elegant anatomy and be corrected. Shakespeare (no matter how you spell him) had no cheeks hollow enough to hold a gill of water, but the most obstinate must confess that Mr. Shakespeare, deer poacher, was a good-sized poet, notwithstanding.

One of rare taste in art and literature, must have large æsthetic faculties, of course, but they alone will not make a poet of him. He must have a luxuriant growth of soul or he will do his singing when his readers are sleeping. If it is shown that when the proper organs are furnished, the proper temperamental conditions are given, and still no poet is the result, then it follows that we must look for some higher source. Where else can we look than to the soul? Soul and mind each have a separate existence. Soul is admitted to be higher than mind. Poetry is the highest human creation. Mind alone can only appreciate and judge of it, but not create it.

The highest—the only true poetry—is written when the mind does not labor at all. The mind is perfectly calm and placid, whilst grandest sentiments take wing of words and flutter to the page. In mind action, when the best thoughts are seized, there is a conscious striving, wrestling, forcing process instituted, as if we were trying to wring the coveted jewels from an unwilling hand. In poetry, the case is exactly opposite. There is no strain, no scuffle; the poet stands 'neath the glow of the ethereal fervency and spangles his page with light divine. The pen flutters over the paper in its frantic eagerness to chain the words which the oracle speaks. He listens enchanted, feeling himself to be an instrument in the hands of angels. 'Tis the soul that speaks, and it learns its language in the skies.

KARL KARLINGTON.

PERSONAL.

THE daughter of Bayard Taylor has until recently been supporting herself as a governess in New York. She and her mother declined a purse of \$30,000 raised by New York ladies on learning that Bayard Taylor died poor. We honor their noble integrity.

OVER the door of a small frame building in which a colored family is living in Greenville, Tenn., is a pine board on which is the legend, now almost erased by rain and storm, "A. Johnson, Tailor." A little beyond the western border of the town is a marble monument that marks the last home of "Andrew Johnson, President of the United States."

MR. JOHN RUSSELL LOWELL was elected over Mr. Gibson as Lord Rector of St. Andrew's University. This is an exceptional tribute to an American scholar, as well as a high compliment to an American diplomatist. Never before have the Scottish universities extended this courtesy to a foreigner, and the honor should be appreciated by Americans. Let us send competent men to represent us abroad if we would command respect abroad.

SOJOURNER TRUTH, the colored lecturer and sybil, died at Battle Creek, Mich., Nov. 26th last, at the reputed age of 103 years. Sojourner Truth, as she called herself, was born a slave in Ulster County, N. Y., and until she gained her freedom was known by the name of Isabella. When she was nine years old she was sold on the auction block with a lot of sheep, she and the sheep bringing \$104. She was owned by a Colonel Ardinburgh, but in 1627 was emancipated. She never learned to read or write. At an early age she experienced religion, and, as most colored people do, became very enthusiastic over it, never missing an opportunity to attend a camp-meeting. By her lectures in various parts of the country on slavery, temperance, and other topics, her services as a hospital nurse during the war, and her great age, she gained much notoriety.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

THERE is a bond of sympathy between all great souls.

THE heaviest burden we can carry is the consciousness of duties unfulfilled.

How immense appear to us the sins that we have not committed.—*MME. NECKER.*

GOOD and clean fatherhood is as essential to the highest development of the race as good and clean motherhood.

NATURE is not a medley of shifting phenomena, but an orderly unfolding of events according to an inner and fixed law of resources.—*HICKOK.*

DEAR to the heart is every loving token
That comes unbidden ere its pulse grows cold,
Ere the last lingering ties of life are broken,
Its labors ended, and its story told.

"It is my way," says a boy who never remembers what he is told, who leaves open gates, who forgets errands and mislays things with which he is trusted, and for all the trouble he causes he thinks it excuse enough to say, "It is my way."

THE knowledge of reading and writing adds 25 to 50 per cent. to the wages of the average laborer of the United States. The 8,000,000 of laborers in Great Britain now, aided by steam and machinery, produce more in one year than the labor of the 300,000,000 of laborers on the earth could have done in 1760, before the age of steam and improved machinery. Yet people are now found, all over the land, who solemnly ask, "Does education pay?"

MIRTH.

"A little nonsense now and then
Is relished by the wisest men."

CONUNDRUM.—Why is a man like a pair of old shoes? If you give it up, see answer in our next.

AN old lady down in Maine says her daughter has just bought an elegant "cabin organ," and she thinks the "nux vomica" stop is just lovely.

A MEDICAL student says he has never been able to find the "bone of contention," and wonders if it isn't the jaw-bone. We suspect he knows the location of the "funny bone."

A GERMAN accosted a broad-brimmed specimen from Texas on Wisconsin Street on Sunday. "Who vos you, I don't know?" Looking the inquisitive German in the face he replied, "I'm a cowboy." "Dot's good," replied our German friend. "Shake. I vos a bully boy doo." They shook.

A MOTHER said to her little girl one day, "What a large forehead you have got! It is just like your father's; you could drive a pony-carriage round it." To which her brother, five years old, said, "Yes, mamma; but on pa's you can see the marks of the wheels."

"Yes," said the young man, "I think I shall learn to play the cornet. Not that I care anything for music, but the fellow in the room above me is a blamed chump, and I'd do anything to render him unhappy."

UPON the arrival of a train, an old lady affectionately greeted a young lady as follows: "Well, how'd do, Mariar? Why, how funny you look! Didn't hardly know ye! Got your false teeth, ain't ye?"



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor us with their recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

THE ENGLISH GRAMMAR of William Cobbett, carefully revised and annotated by Alfred Ayres, author of "The Orthœpist," etc. 18mo, pp. 254. Fancy cloth, \$1.00. D. Appleton & Co., New York.

It was but natural that this stout champion of simplicity and utility in matters political and social, this irrepressible opponent to sham and subterfuge, should have tried his hand in the preparation of a manual of grammar in which the principles governing the structure of language should be set forth in a clear and practical manner, with scarcely a side regard for authorities. As the matter concerned the education of his own children, in which Cobbett assumed the direction, it was something more than the interest of the mere writer that he manifested in his attempt to render grammar something more than a series of definitions, rules, and maxims.

Mr. Ayres has hit upon an excellent topic for the exercise of the critical skill which has been so well indicated in his "Orthœpist" and "Verbalist," and shows a hearty earnestness in his treatment of Cobbett, and it may be said a more than *quasi* sympathy for the stolid Englishman's repugnance to formalism. At the same time the editor's cultivated judgment exhibits itself in occasional criticism of faults which Mr. Cobbett has committed, especially in his criticism of eminent writers.

Mr. Ayres has done the public a service in reproducing this useful grammar, and at the same time calls attention to the points in which Cobbett varies from what is regarded as good usage; to the few errors of diction in his work; and to a more discriminating use of the relative pronouns.

The point he makes is not a new one, but it is one that has a lively application in this day of much loose and careless writing by people that should know better. This is, that *who* and *which* are to be used in the sense of co-ordination, while *that* is properly the restrictive relation. Mr. Ayres illustrates the application of the principle all through the text of Cobbett, thus making the book largely an example for correct usage in this respect, and consequently making the point clear to the dullest.

HIS SOMBRE RIVALS. By Edward P. Roe, author of "Barriers Burned Away," etc. 12mo, pp. 487, cloth. Price, \$1.50. Dodd, Mead & Co., Publishers, New York.

It is but fair to infer from the title that the author has sought in this latest product of his literary industry, to give to the large constituency which finds pleasure in reading everything he writes, a deeply thought-out story. His books, as the critic knows, are not, as a class, distinguished for depth of reasoning or minute analysis of subject, but they possess a liveliness of incident and a warmth of sentiment that are winning upon the masses. This time Mr. Roe draws upon our late civil war for the main substance of his inspirations, and gives us some exceptionally good passages of description, his own personal experiences furnishing material of interest.

One motive appears conspicuously enough in the plot—that of illustrating the gentle and tender side of thought and feeling among those who twenty years ago were arrayed in deadly strife, and to show that the earnestness and sincerity of the Southern heart in the effort to establish a separate nationality, did not altogether suppress the feelings of humanity and courtesy.

The use made of Emerson in the opening chapters strikes us as peculiarly amusing, and the marriage of one of the characters to a widowed and insane woman, seems to us an extraordinary shift, if not quite illegitimate, when viewed from the stand-point of true art. However, no work of the imagination is free from faults of one kind or another; and we doubt not that those committed by Mr. Roe against literary ethics will be regarded by hundreds as features worthy of admiration.

ALBERT GALLATIN. By John Austin Stevens. 12mo, pp. 419, cloth. Price, \$1.25. Published by Houghton, Mifflin & Co., Boston.

This new volume is a valuable addition to the series of "American Statesmen" which Messrs. Houghton, Mifflin & Co. have been issuing for some time past. In it we have a condensed biographical sketch of the eminent man who sustained a most important part in the early years of our National Government. Chosen Senator by the Legislature of Pennsylvania, he entered Congress in December, 1793; but his

qualifications for membership were not allowed, by a very small majority, on the ground of his not having been a citizen of the United States long enough to be a suitable candidate for the office of Senator. He was not permitted to remain in the background of private life, however; for in the following year the celebrated Whisky Insurrection broke out, and he was compelled because of former participation in Excise matters to take some stand in the agitation. His coolness and discreet advice at a meeting of malcontents availed much to prevent an overt act of rebellion against the authority of the President, and led to the final adjustment of the matter in dispute. Next we find Mr. Gallatin in the House of Representatives conspicuously participating in the discussions bearing on the interests of trade and finance. The biographer traces the course of Mr. Gallatin in Congress with a perspicuous pen, his connection with the proceedings in the French complication of 1797-98, being related in a very attractive style. He found his true place when Mr. Jefferson appointed him Secretary of the Treasury, and conducted the affairs of that office through the two terms of Jefferson and during the administration of Mr. Madison, withdrawing from the office at his own instance, in 1813, when he was sent to act as a commissioner to secure the mediation of Russia to avert threatened war between England and the United States.

As a financier Mr. Gallatin stands unrivalled for prudence and skill in the history of our National Treasury. To his mastery of monetary detail we owe the establishment of those principles which have ever since been the guide of the trusted heads in our financial administration. His life as an officer is a lesson of fidelity and earnest work. And on his retirement to private life we do not find him "rolling in wealth," but possessing the very modest competence of about twenty-five hundred dollars a year; an absurd sum to the "sub" of to-day. There is but one thing wanting to render this biography complete—a portrait—which should illustrate the brief, but vivid description of Mr. Gallatin's personal appearance.

WRECKED? A Novel. By William Osborn Stoddard, author of "Evan Hardery," etc. 12mo, pp. 395. Price, \$1.25. Published by White, Stokes & Allen, New York.

At the very threshold of his book Mr. Stoddard introduces us to a variety of characters American and English, which suggests a complicated plot as well as a variety of incident. In fact, the episode of the drive behind the vicious black horses which afterward kicked the buggy to pieces, and the heavy strike of the English speculator in American stocks, constitute a good beginning in the incident line. And it is followed up by the meeting between the wealthy

brother and the disowned sister in a style which renders the two previous incidents tame affairs. This meeting is detailed in an ingenious and powerful manner. Then we are given views of sea-life as experienced by well-to-do people, and bits of interior domesticity supposed to belong to the class of society called "high-toned." There are besides some sketches of horse talk, which show the author to be not altogether unacquainted with the life of the stable. All this mesh of incident and change of scene makes up a really pleasant book. There is a thread of love-making worked through it, but it is not distinguished for much of that intensity which we find in love stories generally. The wreck part includes the loss of an expected steamer on its way from Europe, and the escape from bankruptcy by a hair's breadth of an old bank through the generosity of the chief creditor. Out of all which come several betrothals, and the prospect of happiness to a dozen people young and old.

NATURE STUDIES. By Richard A. Proctor. 12mo, pp. 250. Price, 25 cents. Funk & Wagnalls, Publishers, New York.

Mr. Proctor has arranged in convenient form twenty-five or more short essays on scientific topics by himself and other well-known observers and writers in this neat volume, which the above-named publishers have given to the public at so low a price. Among the titles are: Charles A. Darwin; Dreams; Birds with Teeth; Hyacinth Bulbs; The Origin of Buttercups; What is a Grape? Brain Troubles; Thought-reading; Strange Sea-monsters; and all are written in an easy, untechnical style, adapting them to the general reader. One who wishes to acquaint himself with the present attitude of leading scientific thinkers, will obtain a fairly comprehensive view of it in this book.

HOW BILLY WENT UP IN THE WORLD. A Story for Boys. By Annette L. Noble. 16mo, pp. 396. Price, \$1.25. Published by the National Temperance Society, New York.

This story has a remarkable opening in the shape of an ascent very unexpectedly made by Billy in a balloon which suddenly escaped from its owner's grasp; but it is such an opening as will win the attention of most boys, and make them interested in the recital of a boy's experience with the rough side of life which follows. Billy has good practical relations first with a farmer, and then with a sound, old doctor, where he learns many things which help to cancel the relics of a childhood spent in the domain of city hoodlumism. And what are lessons to him are lessons incidentally addressed to the boy who is reading the book. It is a good present to be given the young just about this time of the year.

PUBLICATIONS RECEIVED.

THE COLLEGE OF ORATORY AND ART, of New York, of which J. E. Frobisher is director, is an institution which offers to the public courses of instruction in vocal culture, for the purposes of the stage, platform, the pulpit, etc. It has been organized by men who are conversant with the necessities of the times, for good speaking and acting; and we doubt not of its success.

LIPPINCOTT'S MAGAZINE for December has a good variety of articles, all of which are readable and most of them instructive; for instance the opening paper on the Menhaden Fisheries and Factories, is an exhaustive recital of a very important industry. Studies from the Census is a suggestive paper with regard to points affecting our growth as a people. The Funeral of a Greek Statesman is a curious picture of Athenian manners and customs; and Women and Gowns is a sprightly little talk on the proprieties of dress. The miscellany of the number is varied, and possesses the usual merit.

COMPLIMENTARY banquet to Mr. S. S. Packard given by the Alumni Association of Packard's Business College, June 2, 1883. This was a pleasant affair for all concerned; the speeches generally indicating a warm feeling of congratulation toward the esteemed head of New York's best known business college. We cordially echo the sentiments which were expressed on this occasion, knowing Mr. Packard as a most earnest and useful teacher.

THE latest number of the *North American Review* has something more to say on Government control of the telegraph, Morality without Religion, and other topics, in all of which the writers indulge an independence of opinion and present facts which are not to be met with in the ordinary channels of literature.

SEVENTEENTH ANNUAL REPORT OF THE HOME FOR INCURABLES, approved and ordered to be printed by the Board of Managers. This is an institution which appears to be conducted on the high principles of charity and hope. The charges of treatment and board are moderate for those who can pay, while many are received and supported gratuitously. We recommend this institute to the public. Mr. J. D. Vermilye, 42 Wall St., New York, is Treasurer.

THE illustrated Christmas number of the *Publishers' Weekly*, F. Leyboldt, publisher, is a very attractive compilation of books suitable for the holiday season. This is a good thing in itself for the bibliophile to have in his library, offering as it does a special list of the beautiful and artistic in literature.

THE December *Century* is an admirable number, opening with an admirably drawn portrait of Peter Cooper, and having for its first article a series of elaborately illustrated descriptions of the Fairest County of England. California is also drawn upon for some beautiful landscapes and figures. In the editorial department there are some practical comments on social and political topics, which are worthy the attention of every reader.

HOME CIRCLES, How to investigate Spiritualism, suggestions and rules together with information for investigators, spiritualists, and skeptics, published by the *Religio-Philosophical Journal*, Chicago. Price, 10 cents.

HARPER'S MAGAZINE for December will delight its large list of subscribers by its attractions of pencil and pen. The artistic features of the articles entitled Alfred Tennyson, Nature's Social Story, and Nest Builders of the Sea, are splendid, while the literary character of the number is higher than usual, in our opinion.

MR. THEODORE STANTON, son of Mrs. Elizabeth Cady Stanton, the Paris correspondent of the *Inter-Ocean*, of Chicago, is about to issue through the Putnams a large work entitled, "The Woman Question in Europe." Some French reformers have requested Mr. Stanton to abridge this book and to prepare a companion volume on the women's movement in America. These two little works are to be issued in French at Paris for circulation on the Continent. They are to be printed for propagandist purposes, in order to show European reformers what is being done in both hemispheres for the amelioration of woman's condition. Before these books can be published, 500 subscribers must be found. About half this number are already secured. It is hoped that some aid may be obtained in the United States. The price of subscription for the two volumes is six francs, or about \$1.25. Names and addresses may be sent to the publisher, M. Fischbacher, 33 rue de Seine, Paris, France, or to Mr. Theodore Stanton, 59 rue de Chaillot, Paris.

VARIOUS. Acknowledgments are due for recent copies of *Wide Awake* and *St. Nicholas*, which are resplendent with holiday sketches and pictures, most attractive to children; also for the excellent *Youth's Companion*. And among other of our exchanges deemed of merit and value are *The Cincinnati Medical News*, *New York Sanitarian*, *Kansas City Review of Science and Industry*, *Druggists' Circular*, *The California Mining and Scientific Journal*, *Harper's Bazaar*, *The Chicago Standard* (Baptist), *Homiletic Monthly*, *Medical Tribune*, *Scientific American*, *Bankers' Magazine*, *The Continent*, *Hahnemannian Monthly*, *Christian Advocate*, *Builder and Wood-Worker*, *Musical People*, *Western Rural*, *Cotton*, *Wood and Iron*.

ALL THE LEADING DRUGGISTS SELL PEARS' SOAP

PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP

PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP

PEARS' SOAP

THE FAMOUS ENGLISH COMPLEXION SOAP.



HIS OPINION OF PEARS' SOAP

IF Cleanliness is next to Godliness, Soap must be considered as a Means of Grace and a Clergyman who recommends moral things should be willing to recommend Soap. I am told that my commendation of Pears' Soap has opened for it a large sale in the United States. I am willing to stand by every word in favor of it that I ever uttered. A man must be fastidious indeed who is not satisfied with it.

Henry Ward Beecher

GOOD COMPLEXION (ESTABLISHED IN LONDON) 100 YEARS.



A SPECIALTY FOR THE SKIN & COMPLEXION,
As recommended by the greatest English authority on the Skin,
PROF. SIR ERASMUS WILSON, F. R. S.
Pres. of the Royal Col. of Surgeons, England.

Nothing adds so much to personal appearance as a **Bright, Clear Complexion and a Soft Skin.** With these the plainest features become attractive. Without them the handsomest are but coldly impressive.

Many a complexion is marred by impure alkaline and Colored Toilet Soap.

PEARS' SOAP

Is specially prepared for the delicate skin of ladies and children and others sensitive to the weather, winter or summer. In England it is pre-eminently the complexion Soap, and is recommended by all the best authorities, as, on account of its emollient, non-irritant character, **Redness, Roughness and Chapping are prevented, and a clear and bright appearance and a soft, velvety condition imparted and maintained, and a good, healthful and attractive complexion ensured.**

Its agreeable and lasting perfume, beautiful appearance, and soothing properties commend it as the greatest luxury of the toilet. Its durability and consequent economy is remarkable.

15 INTERNATIONAL AWARDS.

ALL THE LEADING DRUGGISTS SELL PEARS' SOAP

PHRENOLOGICAL JOURNAL

PREMIUMS FOR 1884.

YOUR CHOICE FROM FOUR.

FIRST.

The Phrenological Bust. This has for many years been manufactured and sold, as being the very best possible aid to the proper understanding of the exact location of the Phrenological organs. Price large size, \$1.00; No. 2, 50 cents.

The organs being alike on both sides of the head, it is so lettered as to show them separately on one side of the bust; and on the other, the different groups of organs—Moral, Intellectual, Executive, and Social—are shown, properly classified. The Bust is handsomely made in white plaster, and very ornamental wherever it is placed, being well adapted to the parlor mantel, the center-table, the library, the study, or the office.

AN ILLUSTRATED KEY accompanies each Bust, fully explaining and giving such directions as will enable the reader to understand its use, including the names and the functions of each of the faculties.

When sent, 25 cents extra for boxing and packing each Bust must be received. The large size will be sent by express at the expense of the subscriber; or No. 2, small size, will be sent by mail, post-paid.

SECOND.

The Diseases of Modern Life. A work on the avoidable causes of Disease. By Benjamin W. Richardson. 12mo, extra cloth, 520 pages. \$1.50.

One of the most important Health Books ever published. We have secured a large edition, handsomely published, for distribution among our subscribers for 1884. It treats most fully of prevention of disease, by pointing out in a simple and practical manner the avoidable causes.

THIRD.

Expression: Its Anatomy and Philosophy.

By Sir Charles Bell, K.H. With numerous Notes, and upwards of Seventy-five Illustrations. Price \$1.50. We continue the offer of this great work as a premium to subscribers to THE PHRENOLOGICAL JOURNAL for 1884. The work considers Expression in all its details as affected both by anatomy and by mental characteristics. The following from the Table of Contents will show something of its scope:

The Theory of Beauty in the Countenance; The Form and Proportions of the Head and Face; Beauty and its sources; Camper's Facial Line; The Changes from Infancy to Age; Characteristic Organs of Man; The Form of the Lower Animals; Theories of Ideal Beauty; The National Peculiarities in the Form of the Head; Expression in the Countenance; The Influence of the Mind upon the Features; Bodily Conditions and Mental Operations; Blushing; Muscles of the Face; The Forehead and Eyebrows; The Nostrils; The Lips and the Cheeks; The Eye; The Expression of Pain in Man and in Animals; The Expression of the Human Countenance in Laughter, Weeping, Grief, Pain, Convulsions, Fear, Terror, Despair, Admiration, Joy, Jealousy, Rage, Madness, Demoniaca, Death; Expression in Reference to the Body; What are Emotions? The Emotions Modified by Controlling Expression.

FOURTH.

Reminiscences of Spurzheim and of George

Combe. And a Review of the Science of Phrenology from the period of its discovery by Dr. Gall to the time of the visit of George Combe to the United States in 1840. By Hon. Nahum Capen. With Portraits. One volume, 12mo, extra cloth, price \$1.50.

The author of this work was very intimately associated with Dr. Spurzheim, being his confidential assistant and adviser during his visit to this country; and his correspondence and personal matters all passed through Mr. Capen's hands; and in offering it as a premium to subscribers to the PHRENOLOGICAL JOURNAL we feel confident that we are giving to them that which will prove of the utmost interest to old-time readers, as a review of the subject, and to the younger readers as a historical work.

TERMS.—The JOURNAL is now published at \$2.00 a year (having been reduced from \$3.00), single Numbers 20 cents. Twenty-five cents extra must be received with each subscription, to pay the expense of boxing and packing the Bust, which is sent by express at expense of subscribers, or for postage on the Premium Book and JOURNAL, which is now sent to all subscribers, prepaid. Amount may be sent by P. O. O., P. N., or Registered Letter. Postage-stamps received. Address

FOWLER & WELLS, Publishers, 753 Broadway, New York.

Old Series, Vol. 78
Feb., 1884.

KNOW THYSELF

New Series, Vol. 29
NUMBER 2.



A First-class Monthly Magazine, devoted to the Study of Human Nature in all its Phases.

SUBSCRIPTION TERMS.
 1 copy, 1 year. . . . \$2.00
 1 copy, 6 months. . \$1.00
 1 copy, 1 month. . . . 20c.
 10 copies, 1 year. \$15.00

CONTENTS.

I. Babu Mozoomdar, The Hindu Teacher. Portrait,	67	Notes in Science and Agriculture.—	
II. Vegetable Chemistry. Illustrated,	72	Human and Canine Blood; A Test for Gluten; A Man of Purpose and Gumption; Signs of Wood; A Curious Indian Practice with Human Heads; Adaptability of the Cotton Plant; Meteoric or Cosmic Dust,	111
III. Faith in the Verities of the Universe,	76	Poetry.—Faces; My Creed; To a Flower; Comus (A Masque), Concluded, Illustrated; Lamentation of the Lungs.	
IV. The late Arthur Erasmus Brinkworth. Portrait,	78	Editorial Items.—Fundamentals in Political Economy; What are our Boys and Girls Reading? True Teachers; The Institute Course of '83,	114
V. Language.—No. 5. Printing—Extension and Progress of the Art. Illustrated,	80	Answers to Correspondents.—Gaping; The Motive Temperament; Selecting a Wife; The Lower Jaw and its Significance; Portrait of a Murderer,	120
VI. Deference,	92	Personal—Mirth—Library, etc.	
VII. "A Horse, Sir, is Like a Child,"	93		
VIII. What is Love?	95		
IX. Apparitions and What They Are,	103		
X. Minute Life in the Water. Illus.,	106		
XI. A Mother to Other Mothers,	108		
XII. A Series of Don'ts,	110		

ENTERED AT THE POST-OFFICE AT NEW YORK AS SECOND-CLASS MATTER.
FOWLER & WELLS, Publishers, 783 Broadway, New York.
 L. N. FOWLER, *Imperial Buildings, London, England.*

PREMIUM LIST.

We present below a List of Articles offered as Premiums for Clubs to THE PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH, and would call special attention to the very liberal offers and conditions given. The articles are all new and useful; the very best of their kind. Besides these, to each subscriber is given a splendid Premium.

No. of PREM.	Names of Articles offered as Premiums for The Phrenological Journal and Science of Health. <i>An Illustrated and Descriptive Circular will be sent on receipt of stamp.</i>	Price.	No. of Subscrib- ers at \$2
1	Gents' Watch, Nickel, Cylinder, Stem-Winder.....	\$5 00	7
2	Gents' Watch, Nickel, Lever, Stem-Winder.....	10 00	13
3	Gents' Watch, Silver, Lever, Stem-Winder.....	15 00	20
4	Gents' Watch, Gold Hunting Case, Stem-Winder.....	65 00	100
5	Ladies' Watch, Nickel Cylinder, Stem-Winder.....	6 00	10
6	Ladies' Watch, Silver, Cylinder, Stem-Winder.....	10 00	14
7	Ladies' Watch, 5 Carat Lever, Stem-Winder.....	21 00	30
8	Ladies' Watch, 14 Carat Lever, Stem-Winder.....	54 00	25
9	One Dozen Silver Plated Tea Spoons.....	6 00	6
10	One-half Dozen Silver Plated Table Spoons.....	6 00	6
11	One Dozen Silver Plated Dessert Spoons.....	10 00	10
12	One Dozen Silver Plated Table Forks.....	12 00	12
13	One Dozen Silver Plated, Solid Steel Knives.....	8 50	9
14	Either a Silver Plated Castor or Butter Dish.....	7 00	7
15	An Elegant Silver Plated Fruit or Cake Basket.....	9 00	9
16	The Amateur's Photographic Outfit.....	12 00	12
17	An Elegant Graphoscope.....	6 00	6
18	Boy's Tool Chest, 45 assorted tools.....	5 00	7
19	Youth's Tool Chest, 61 assorted tools.....	10 00	14
20	Gentleman's Tool Chest, 85 assorted tools.....	22 50	30
21	Family Grind-Stone.....	3 00	4
22	Kidder's Electro Magnetic Machine, No. 4.....	90 00	90
23	Kidder's Electro Magnetic Machine, with Tip cup, No. 5.....	27 00	25
24	Household Microscope.....	5 00	6
25	The Library Microscope.....	10 00	10
26	The Home Learners' Telegraphic Instrument.....	4 50	6
27	The Combination Fruit Press.....	3 00	4
28	Gold Plated Paragon Pencil.....	3 00	3
29	Gold Plated Telescopic Pen and Pencil.....	10 00	5
30	Telescopic or Acromatic Spy-Glass.....	5 50	5
31	An Eight-Day Clock, "Victoria".....	6 00	6
32	An Alarm Clock, "Joker" Lever.....	6 00	6
33	The Mechanical Organette.....	8 00	8
34	The "Holly Scroll Saw".....	6 00	4
35	The "Demas" Scroll Saw and Lathe.....	10 00	10
36	German Student Lamp.....	4 75	6
37	Gentlemen's Rubber Over-Coat.....	4 00	4
38	Ladies' Rubber Water-Proof Cloak.....	4 00	4
39	Rubber Leggings, (Gents', Ladies' or Misses').....	1 50	2
40	Rubber Water-Bottle, 2 quarts.....	2 00	2
41	Mattson's Rubber Syringe.....	3 00	3
42	Goodyear's Health Lift.....	5 00	5
43	Goodyear's Pocket Gymnasium, Family Set.....	10 00	10
44	Pump Plant Sprinkler.....	1 50	2
45	Set of Portraits for Lecturers.....	40 00	40
46	Set of Phrenological Specimens.....	40 00	40
47	Small Set of Phrenological Specimens.....	10 00	10
48	Set Lambert's Physiological Plates.....	10 00	10
49	Worcester's Unabridged Dictionary.....	10 00	12
50	Student's Set of Phrenological Works, with Bust.....	10 00	8
51	Geo. Combe's Works. Uniform edition, 4 vols.....	5 00	4
52	New Physiognomy; or, Signs of Character.....	5 00	4
53	The Hydropathic Encyclopedia, by R. T. Trall, M. D.....	4 00	4
54	The Family Physician. By Joel Shew, M. D.....	3 00	3
55	Health in the Household; or, Hygienic Cookery.....	2 00	3
56	History of Woman Suffrage, either volume, cloth.....	5 00	5
57	Cowan's Science of a New Life.....	3 00	3
58	Phrenological Busts, Large.....	1 00	2
59	Cast of Human Brain.....	1 00	2
60	Emphatic Diaglott: or, New Testament in Greek and English.....	4 00	4
61	A Set Science of Health, Four Years, bound in muslin.....	12 00	9
62	THE PHRENOLOGICAL JOURNAL, New Series, 13 years, bound.....	45 00	20
63	THE PHRENOLOGICAL JOURNAL, any one year, bound.....	4 00	3
64	A Year's Subscription to the PHRENOLOGICAL JOURNAL.....	2 00	3
65	Library of Our Publications, Agent's Selection.....	5 00	4
66	Library of Our Publications, Agent's Selection.....	10 00	7
67	Library of Our Publications, Agent's Selection.....	25 00	15
68	A Full Written Description of Character from Photographs.....	5 00	4
69	A Scholarship in the American Institute of Phrenology.....	100 00	100

Send in names as fast as received, stating they are on premium account, and all will be placed to your credit, and premium sent when the number is complete. Send 10 cents for Specimens, Prospectuses, Blanks, etc., used in canvassing. Names may be sent from different post-offices if desired. Remit P. O. Orders, or in Registered Letters. Stamps received. Address

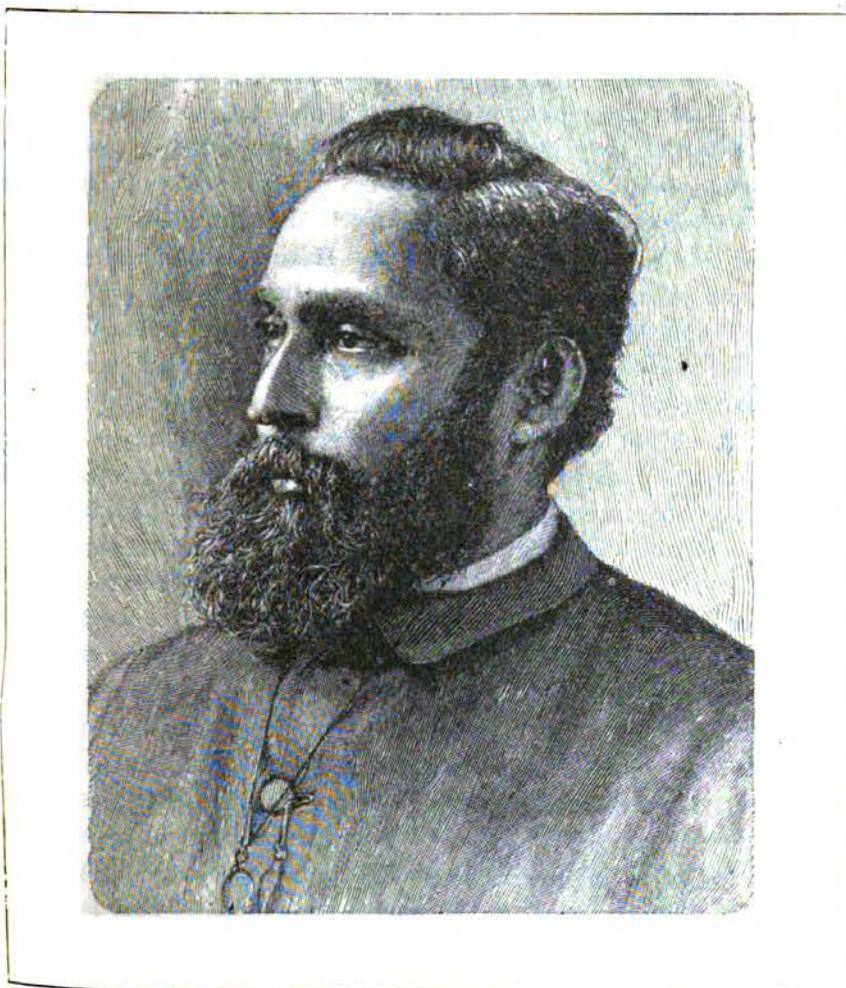
FOWLER & WELLS, Publishers, 753 Broadway, N. Y.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 78. 1884.

NUMBER 2.]

February, 1884.

[WHOLE No. 542.



BABU MOZOOMDAR.

THE following phrenological sketch of this eminent Hindoo teacher was made at a personal interview :

You have a large head, and apparently your body is sufficient to give to your

brain all the support it can take, so that the boiler is equal to the engine. Herein is the mystery or the solution of the mystery of success in the world. A great, active brain, with body too weak for its

support, shows a man who is fitful—brilliant at times, but not uniform. You have the power to hold your mind steadily to the work of life, and do three hundred and thirteen days' work in the year without feeling wearied.

You inherit your build evidently from the mother's side of the family, hence your excellent nutritive system; also your intellect, which acts more intuitively than logically. You absorb a subject *en-gros* and *en-detail*, and see the logical bearing of the facts without going into a process of ratiocination. Your perceptive intellect enables you quickly to snatch the facts; and your power of co-ordinating them, and, as it were, of weaving them into the web of thought, works instantaneously; and thus you travel on through a subject with a kind of interior illumination which enables you to melt down and master that which might be difficult to many other men. If we may use the term, you are able to employ your logical faculties in respect to facts, as the linen-spinner twists the thread out from the distaff, and thus utilizes by organizing the fibres. Facts with you are twisted into an argument without any seeming purpose; they grow into it as the branches and twigs of the tree grow out of the trunk.

Your Language is very largely developed, and this gives you power of memory and of learning other languages than your own, and of using any language felicitously.

You have a scholarly head, and would be a good teacher. This means three things: first, the ability to get knowledge; second, the power to retain it; and third, the power to utter that which you know—especially the power to make whatever you understand specific, intense,

and centralized. People know what you are talking about; and, in traversing a subject, you are able to hold yourself to a special line of thought until you have completed it—just as a mowing-machine cuts everything that stands within its reach and touches nothing else.

Your Memory is something remarkable—not only in respect to things, but in respect to transactions and facts. You would make for yourself a good position as a writer, as a historian. You would pick up the salient facts of history and blend them into a harmonious whole.

Your knowledge of human character enables you to read men at sight and to reach the peculiarities of different men. If you were speaking in public you would have in your eye half a dozen intelligent faces, to whom you would address what you had to say, and, when your selected person looked puzzled, you would revolve the thought and give it new phases until that face seemed satisfied, then you would think that the congregation should understand it. Unless the face that you looked at seemed to indicate satisfaction, you would fear that you had failed to express the point in hand with sufficient clearness, and thus a public speech by you would seem to the general listener more like a private address to a few intimate friends.

Your Benevolence is large enough to make you sympathetic. Your reverence is less developed than Benevolence, and if you were a preacher of the Gospel, you would do it more for the benefit of the hearer than you would for the glory of the Master, and let the glory come incidentally; just as the pleasure comes to a mother when a stranger has plunged into the river and saved her drowning child without knowing to whom it be-

longs. You incline to be skeptical and critical, and to hold truth, or the claims of other people in respect to truth, at a distance until you can criticise it and appreciate it, and find it to be true for yourself; it is not according to the cast of your thought to swallow statements whole.

You are known for Firmness, steadfastness; the desire to stand in your lot and place and bear your proper share of burden without wincing. At the same time you are not inclined to controversy. It does not suit you to clamor, to join issue, to struggle and strive; and if you wanted to convert a man to your view of a question, you would do as a lawyer would with a jury, open the case, and, if possible, illuminate his mind so that he will think as you do. There are lawyers, and there are polemical men in other directions, who storm as it were upon their auditors, and insist upon it that sensible men can make no other inference than the one they wish them to. Your idea would be to open out the matter and make it acceptable and desirable.

Your power lies in your intellect and in your moral qualities joined with Firmness, Self-reliance, Aspiration, and that kind of fore-looking prudence which is willing to work to-day for the future. You might enjoy the pleasure of present renown as an author or as an orator, but if you were satisfied that you could write a book which should become a text-book for ages, you would forego the pleasure of present popularity. An organization like yours predicates success on the future more than on the present; is apt to regard the present as a seed-time—the ambitious time may be beyond the present era; consequently, if you were a farmer, you would plant fruit trees at sev-

enty years of age which might take twenty years to mature, with a feeling that though you did not live to enjoy the fruit, others would be grateful. Then your memory teaches you that you have been feeding on fruit trees which other men planted before you were born, and you feel that you must at least make yourself a link in the order of things and do as much for the world as the world has done for you.

Socially, you are warm in your attachment; children and pets think much of you; woman believes in you, and always has. You would be popular in woman's society in any of the phases of life; as a learned man, among those who are cultured; as a teacher, among the young; as a citizen, among all.

You have very little tendency to be haughty and lordly; and at the same time, when you are among the haughty and the lordly, you can stand up, and stand as firmly and as straight as they do; you can meet them on their own ground. At the same time the lowly have access to you; you are willing they should have, and they read in your very looks that you are a brother—perhaps an elder brother, but nevertheless a brother. Not one man in a thousand has as many friends among the little folks as you. People who are weak in pocket and in brain, or unknown or uncared for by men, seem to have confidence in you, and believe that somehow you can do them service, and you are willing they should think so. God's little ones are precious to you.

You are lacking in secular wisdom. The dollar does not weigh very heavily in your calculations; when you want it, you like to find it in your pocket; but you need more side-head in the realm

of Acquisitiveness and Secretiveness to relate you successfully to the secular side of life. You could write books better than you could publish and vend them.

PROTAP CHUNDER MOZOOMDAR was born about forty-two years ago in the city of Calcutta, India. As soon as his eyes saw the light, the Brahmin priest was sent for to cast his horoscope, but the result of the mystic calculations was long since lost, and that curiosity can never be satisfied which would like to know whether the superstitious priest even dreamed of the strange future which lay before the little child.

The father of Protap Mozoomdar was a large, handsome man, with a benevolent and generous disposition, although fiery and irascible at times. He was himself the son of a rich and benevolent Hindoo, who, as are all the family, was connected with the banking interests of Calcutta. They were not over-zealous in Hindoo belief, and Mr. Mozoomdar remembers as a boy seeing a liberal paper lying about the house, which he thinks must have been a copy of the paper edited by Ram-Mohun Roy.

His mother was not particularly fine-looking, but she was very fair in complexion, and gentle in manner. When Protap was but ten years old his father died, leaving his young wife to all the horrors of a Hindoo widowhood. She survived her husband nine years, but never ceased to mourn for him. One of the recollections of her son was of waking often and often to find his mother weeping alone in the darkness and silence of the night. Of a large family of brothers and sisters only a few grew up. Protap himself was a very sickly boy, but grew stronger as he grew in years. He went to school as other boys did, and learned to read and write, but did not begin English, of which he is such a complete master, till he was eleven years old. The first day he spent in learning the alphabet. But

the next time he took up his primer he chanced to open it upside down, and puzzled for hours over it before he discovered the mistake. Seven years were spent in the College of Calcutta, where the chief branches that he pursued were English and mathematics. In both of these he excelled, carrying the study of the latter through algebra, trigonometry, and conic sections. His ready and retentive verbal memory, a not unusual gift among the Hindoos, easily gave him a large vocabulary in English, and he has a wonderful facility in observing and using uncommon words and expressions. As an illustration of his memory, he was once present at a trial for libel at which the judge gave a remarkably good and sensible decision. It was found afterward that no notes had been made of it, but Mr. Mozoomdar reproduced the whole almost verbatim from memory. He can repeat sermons that he has heard in the same way, "having a knack," as he says, "of remembering words as other people have of remembering faces."

Upon leaving college young Mozoomdar entered the great bank of India, of which so many of his family were members. Among others was a cousin two years his senior, Chunder Sen, destined in after-years to be the great leader of religious reform in India. Chunder Sen had always a great fascination for his younger cousin, and an influence that was uniformly good. "My admiration for Sen kept me out of a great deal of mischief," says Mr. Mozoomdar, in looking back to those boyish days.

He was in the bank but eighteen months. Being quick at figures he would finish his prescribed duties early in the day, and then would spend all his spare time in reading Emerson, Carlyle, and other authors, or in writing out meditations and prayers. Chunder Sen meantime left the bank, and finally life there became so irksome to Mr. Mozoomdar that one day he gathered up all his books and papers under his arm, and going to the president's desk, said: "I am going home; I can not waste my time in making money."

In vain they urged him to remain, offering to double his salary. He had property enough to support him for some time, and upon this he subsisted, devoting every waking hour to the study of religion and philosophy.

During this time he still worshiped the Hindoo deities, joining in the feasts and ceremonies with his family. But the goddess of learning, whom as a boy he loved best of all, was still his chosen deity. His innately pure soul found nothing gross or revolting in her service. She was represented as a beautiful, fair-skinned woman sitting on a bed of lotus blossoms, which floated on clear water. Her deepest power over mortals lay in her songs. It was music and harmony when she spoke. All inkstands and pens were cleansed and laid before her; school-books were wrapped in white muslin and brought into her presence for her blessings, and sheaves of corn and blossoms of the mango-tree were placed at her feet as offerings.

Little by little the studious youth lost faith in Hindooism and caste. He was always seeking after God, if haply he might find Him. As his mother used to rise alone at night to weep, so he would rise and pray. But in all this struggle for monotheism he was never influenced by Christian missionaries or the Bible. He was prejudiced against both, but especially against the Bible. The Bengali translation was so repulsive to him that he was not attracted to read it in English.

In about 1859 or 1860 he took the great step of his life in joining the Brahmo-Somaj as a disciple. "For all that I am, I am indebted to that step," says Mr. Mozoomdar of himself. He was soon after appointed to edit the *Tatwabodhiri-patrika*,—"The Journal that Awakens a Knowledge of God,"—a liberal paper started in about 1843. He also published a book, "The Religious Prospects of India," the entire cost of which was defrayed by a generous uncle.

Union with the Brahmo-Somaj meant rupture with his family. He was compelled to suffer reproach and scorn, but

never faltered in his purpose. The family house was sold; he was given his share, and lived thenceforth in a little home of his own.

Mr. Mozoomdar was married while still very young. According to Hindoo custom his mother selected his wife for him, as his father was dead. He never even looked upon his bride's face until after their marriage. It has been, however, an exceedingly happy union. It is a proof that that method is not wholly objectionable when a man can say, as does Mr. Mozoomdar, "If the whole world of women were to be presented to me, and I were allowed to select the one I would have for a wife, I would select her." They have had no children.

Mr. Mozoomdar visited England in 1874, and spent about eight months. He has also visited various parts of the European continent, and has travelled all over India, preaching and teaching. His recent visit to America followed a stay of several months in England, where he was most warmly received. In this country, from Boston to San Francisco, he met exceedingly cordial welcome. His enthusiasm for the cause of religious reform in India is intense, and he presents it with marvellous eloquence. Not only by word of mouth has he announced his ideas, but his two books, "The Faith and Progress of the Brahmo-Somaj," and "The Oriental Christ," unfold the principles and hopes of this Eastern reformer in a masterly manner.

The peculiar charms of Hindoo character are well represented in Mr. Mozoomdar. He has the faculty of winning all hearts. He is reverent and devout. Nothing in America was more distasteful to him than the hurry and bustle which prevail everywhere. Nothing could swerve him from the even tenor of his way. While those whose guest he was hurried away to their daily toil, he would composedly sit down to his devotional books and to the intoning of Sanscrit prayers. He expressed himself as greatly pleased with the opportunities here given to women. He has himself

done a great deal for the women of India. Born with a love of teaching, from mere boyhood he would teach all the women of the Zenana whatever they wished to learn, and his sisters, cousins, and wife were in turn his faithful pupils.

From America Mr. Mozoomdar went to Japan and China, to see what religious

progress is going on in those countries, and he is soon to return to Calcutta to resume his labor of preaching and teaching the great doctrines in which he believes: The Fatherhood of God, the Brotherhood of Man, and the abiding sense of an overruling Providence.

S. B.

VEGETABLE CHEMISTRY.

There are gales of sweets,
There are odors bland
In the Asian wild,—
By the sea-ile strand.
There the spice-tree yields
Its fragrance up,
And incense pours
From its scented cup.

TO obtain even a slight knowledge of the aromatic and medicinal properties of plants, the student must penetrate to the chemistry of vegetation. This long misunderstood science reveals wonderful



CLOVE (*Caryophyllus Aromaticus*).

facts concerning the strangely dissimilar products, and the many distinct individualities nourished and developed by the same growth.

Poisonous bases execute their deadly missions,—gum, sugar, and starch are for the sustenance of man,—rare perfumes, flavors, and vivid coloring delight the senses, yet the plant labors on with the doors of its laboratories closed, nor has it ever told how these wonderful products are evolved.

We can perceive the influence of the kindly sun and nourishing dews in calling forth the latent buds, and flinging showers of beauty over the springtime, but we fail to penetrate the hidden reservoirs that yield the fragrance filling the air when the springtime flings abroad its wealth of bloom; and again, in the autumn days of "golden fruitage," we can not trace to their hidden source the numberless delicious flavors inviting the taste on every side. The plant holds in its tissues an unwritten history. We read there only the record of effects,—the causes are ever-recurring miracles. Chemistry, so long regarded as an occult science, has revealed the fact that the four organogens—oxygen, hydrogen, nitrogen, and carbon—are the protoplasmic agencies of creation. In the plant, the variety of their combinations gives the diversity of form, coloring, and odor, with all the essential and accidental properties of its being.

Carbon, perhaps the greatest absorbent in nature, must be briefly considered before entering at all into the chemical analysis of the plant. This is the most unchanging and indestructible of the elements, not being affected either by air or moisture, and it also forms the solid element of all vital creations. Charcoal is carbon and a little ashes, and the diamond, the costliest of gems, is only pure carbon in a crystallized state. Building-posts which are to be sunk in the earth, are often charred to prevent decay, and charred wood, retaining its bark and physical structure, has been found deep

in the earth among the relics of pre-historic races. This indestructible substance, when chemically combined with oxygen, forms a colorless and odorless gas, and while very deadly in its effects on animal life, it is the chief support of the vegetable tribes, bearing to them the same relation that oxygen does to the animal.

The organogens are as conquering kings, constructing, destroying, and rebuilding the material world and its inhabitants, and the vital forces seem strangely subservient to these giants of the universe. Through their agency, the processes of distillation and brewing are carried on in the tissues of the plant, with all the chemical changes of *diastase*, *dextrine*, and sugar, so well understood in the manufacture of intoxicants. Here the protoplasmic forces are constantly performing their wonderful chemical feats, in giving to man the necessaries and luxuries of life so abundantly yielded by the vegetable world and its products.

The subtle qualities residing in vegetable products, as odor, taste, nutritious and medicinal virtues, or their opposite, are often termed the accidental properties of plants, and chemistry holds the keys of these storehouses of treasure.

After the protoplasmic forces have acted upon the opened leaves and creeping roots, causing them to imbibe the moisture of earth and air, this crude fluid acquires new properties as its course becomes more complicated among the tissues,—for the elementary atoms are continually forming new combinations,—and often wonderful, and even paradoxical results follow. Yet each family of plants maintains its chemical balance with unvarying exactness.

No more than in our Saviour's time, do men "gather grapes of thorns, or figs of thistles," and the chemistry of life and death is continually bringing in the new, and bearing away the old. While the sunlight is the mighty agent in developing the resources of the plant, building up the cell-walls, and opening the leaf-pores to receive the nutritious moisture,

the sunbeam is not compelled to watch its *reception* and *absorption*. The protoplasmic forces can best perform these



CINNAMONUM.

offices unaided by light, their greatest activity in this department being during the night-time. According to Sir J. Smith, more than five inches of dew alone, are consumed by the vegetation of England yearly. While the simpler activities of the plant thus reject the aid of the sun, the more intricate workings demand its help. The green chlorophyll, which exists among the protoplasmic atoms, depends on light for its evolution and support, while the hues of some full-blown flowers often exhibit opposite qualities, even fading in the sunlight, to recover their brilliancy with the lengthening shadows and the falling dews.

NUTMEG (*Myristica Moschata*).

Hidden away in the recesses of the plant are other secretive reservoirs, containing gums, resins, and oils, from which

valuable products, both fragrant and medicinal, are obtained. Expressed oils are usually prepared only from the fruit, while the volatile or essential oils are the product of distillation, and they are found in the leaves, bark, and flowers also.

Spices owe their pungency and aroma to their volatile oils. The fragrant shrubs which produce the spices in daily culinary use, are natives of the East Indies, and are exceedingly rich in oils, particularly the clove, which yields one of the few essential oils heavier than water. The clove-trees are held in superstitious regard by the natives, and their wanton destruction by the Dutch settlers in the Spice Islands, in order to keep the prod-



TEA-PLANT.

ucts under control, to command the trade at high rates, has, on more than one occasion, led to serious outbreaks among the islanders, in trying to protect their favorite clove-trees. This plant belongs to the myrtle family, and the dried flower-buds are the cloves of commerce.

Cinnamon, the bark of an aromatic shrub of the laurel tribe, has been in use since the earliest historic eras. It is named in Scripture as one of the ingredients of the holy anointing oil of the Jewish sanctuary, concerning the preparation and use of which such explicit directions were divinely given to Moses. The prophet Ezekiel also mentions this spice as among the riches of Tyre. Spices were among the treasures the Queen of Sheba presented to Solomon, and the kings of the earth who sought to hear

his wisdom, laid spices with their other gifts at his feet. The Egyptian laid away his dead, embalmed in spices and fragrant gums, and the funeral piles of the nations practicing cremation, were sprinkled with spices, and saturated with their costly aromatic oils.

The nutmeg is even more restricted in its growth than the other spices in common use. The fruit when ripe bursts its outer covering, revealing the laminated wrapper of *mace*, and the kernel within it. Nutmegs require to be cured and preserved before they are ready for market. Not only are the spices and rarer exotics rich in aromatic products, but unrivalled perfumes are also stored away in the cells of many a denizen of the common garden.

In the Orient rose gardens of great extent have been cultivated through historic times for the oil alone.

Coffee, the beverage of a large portion of the civilized world, contains an oil of very active properties. This aromatic shrub, which was discovered wild in the desert fastnesses of Arabia and Ethiopia, produces clusters of fragrant white flowers growing from the axils of the leaves. The berry is red when ripe, and separating the kernel from the husk, was a laborious and difficult process when performed after the primitive methods of the East. Coffee acts upon the nerves, and is an antidote for many poisons. The herdsmen of Arabia noticed the exhilarating effect of this plant upon their flocks, and the howling dervishes drank infusions of the berries to keep them wakeful in their wild night-ravings long before it was in use as a beverage. Coffee, unlike the spice products, is a modern luxury, having been introduced into Europe only about the middle of the seventeenth century.

Gums and gum-resins are among the valued products of various plants. The Acacia and Balsam tribes are particularly rich in these commodities, which have been in use since the earliest times. In Genesis we read that the Ishmaelites came from Gilead with their camels la-

den with spices, balm, and myrrh. Probably no vegetable product was valued higher medicinally in those early days than the balm of Gilead.

The fabled Phoenix was believed to live on frankincense and odoriferous gums, and to build its funeral pile of cinnamon, myrrh, and other fragrant commodities, that it might be dissolved in a cloud of fragrance.

Gum-arabic and other gums in common use are products of the Acacia family, which is widely disseminated through the tropic zone of Africa, being found from Arabia, along the margin of the Saharan Desert, to its western extremity. Caravans from Ethiopia carry their aromatic burdens across those sandy wastes, as in the days of Moses. Australia, the land of strange animal and vegetable tribes, produces a great variety of Acacias, and the leaves possess a singularity of structure, being situated vertically on the stalk, presenting to it their margins instead of surfaces, both sides equally receiving the sunlight and moisture. But our paper has reached its limits.

To the "herb of the field" a diseased and stricken race turned for alleviation of its sufferings, and accident often taught man the harmful, healing, or nutritious properties of plants, and some knowledge was also divinely given. Perfumes were in use before the properties of plants were written of, and Noah planted gardens as well as vineyards. One of the older pyramids contained an inscription concerning the amount of the various garden vegetables, as onions, radishes, etc., which were consumed by the builders during its erection.

It is not probable that the vegetation of the earth has greatly changed since the creation of man. When the earth was finally prepared to be the abode of the human race, the *fruit-bearing* orders and sub-orders were called into existence; then, too, appeared the other highest forms of vegetation containing aromatic and nutritive qualities, and also the highest types of floral beauty. These all belong to the *recent* period, or immediately

preceding the creation of Adam and Eve. The Garden of Eden contained their food, the *fruit* in its highest state of perfection. That man should eat the "*herb of the field*," and be pursued by thorns and thistles and vile weeds, were among the curses of his disobedience and fall.

ANNIE E. COLE.

DESIRING AND CHOOSING.—"Oh," said a poor drunkard, "I desire above all things to reform, and be a steady man."

Yes, you may desire it, but do you choose it? There is a great difference between desiring a thing and choosing a thing. If you choose to be a reformed man, you will be one.

Ask a poor, ragged vagabond, "Do you wish to become rich?" Of course he will say, "Yes." But he does not choose it; he desires to be lazy much more than to earn a living, therefore he is a vagabond.

"Charlie, do you desire to be a scholar, and stand at the head of your class?"

"Indeed I do!" cried Charlie; but Charlie is at the foot of everything, because he likes his ease better than he likes to study.

Lucy said, "I really desire to be obliging and sweet-tempered." "Then you must choose to be," answered her mother.

MY CREED.

ALTHOUGH I mourn that sin walks free,
That beauty is misshapen,
While some gnarled limbs mark every tree
And right's for wrong mistaken,

I can not feel the plan is God's,
That He from the beginning
Intended us to merit rods
And take delight in sinning;

I only understand His love,
His mercy overgrowing
Our broken efforts: see Him, dove
And olive branch bestowing.

S. L. OBERHOLTZER.

FAITH IN THE VERITIES OF THE UNIVERSE.

IT is well at times to consider these in their broadest aspect, not as theologians, but as responsible beings who have to deal with them. The highest truths are discoverable to honest investigation. If there is a power which makes for righteousness, those who are in obedience to its laws must share in its benefactions, and those that are perverse must fall under its retributions. If there is a fundamental morality, then Faith should apprehend it. Faith is assurance making doubly sure by experience. We use an *if* here as a simple postulate for conviction where really a doubt should not exist.

The evidences of a Creator above creation lie equally before the agnostic and the atheist as well as before the deist and Christian believer. Nature does not present proof to the one class and doubt to the other. If the one believes and the other denies, it is not because the proofs are at fault, but the failure will be found in the mental attitude of the observer. There may be no aptitude to see what an honest mind would soon discover. There may be evil biases through previous habit. Prejudice may stand sentinel at the gates of science. Materialism, grown strong through the manipulation of temporalities, may crowd out spirituality as a myth, because incapable of square measure, mathematical demonstration to the senses, or avoirdupois weight. The facts of history lie open before us, but they can not be scientifically demonstrated. The moral obligations of the decalogue do not come within the problems of Euclid. If thieves, prostitutes, knaves, and murderers will only be satisfied that their deeds are wrong through chemical analysis or geological discovery, they must be given over to the magistrate. We can not weigh love in a balance, or measure a thrill of joy by equations.

What a man denies at one time he will often believe at another, and why? because the evidence varies, or rather, is it not because the moral status of his mind

has experienced a revolution? The same proofs on temperance that are clear to a total abstainer are obscure to a rum-seller; and what would convince a man of integrity of fraud, would make but a slight impression upon a knave. A confirmed sensualist will need more proof to convince him of the obligations of the seventh commandment than a man of pure life. A pessimist who concludes that life is not worth living, and so terminates it with the razor or the pistol, has the same evidence before him of the sacredness of existence as a Wesley or a Wilberforce, and according to his unbelief is his recompense.

It is a trite remark that sincerity is no test of truth; but every one is responsible for the candor of his mind in arriving at conclusions, and for his moral attitude in relation to the great questions of human destiny. Belief or unbelief changes them not; but a right understanding of them will necessitate that conduct which secures their blessings. Men may take poison, supposing it to be good medicine, but their sincerity will not neutralize the deadly effects. To say that men may be equally honest atheists and agnostics as devout worshippers, is to say that truth may search for no purpose; that men may feel after God, and yet that the Eternal Father will retreat before the earnest cry of His children. An atheist has recently said, "Do the right and you will know the right," and the greatest of earth's teachers has proclaimed, "If any man will do my will he shall know of the doctrine." Can men be honestly bad as well as sincerely good? Is truth a wild-goose chase? Will the soul's aspirations for the highest good meet only at last with the serpent's food; with blank despair or joyous confidence, where there has been equally zealous search? If so, then nature is false and the universe a derisive sphinx.

It has been said that "belief is not a merit, or disbelief a crime." But as a man believes, so is he. If he does not

believe in truth, or honesty, or self-denial, or disinterestedness, or purity, will he practice them? If men believe that life is not worth the living, that honesty will not pay, that spirituality will bring more pain than pleasure, will they become heroic sufferers for righteousness? Men may fall below their faith, but rarely will they live above it. Disbelief in virtue is a sin, and thousands of young men are wrecked annually on the shores of Time, because they have no faith in a Power making for righteousness. Our poor-houses and State prisons are full of them. No one will labor for the improvement of his race who has no faith in man as worth saving. To persuade men to make this life a paradise if possible, without faith, will be found a labor of Tantalus. To say, "What a poor creature that man must be who expects to be rewarded for what he believes; so much faith for so much pay," is to speak unwisely. Yet nothing is clearer than that as is the faith of a man, so is his reward. The world's discoverers, inventors, philanthropists, missionaries, heroes, martyrs, and reformers have always been men of faith; so much faith, so much success. Columbus, Watt, Arkwright, Stephenson, Goodyear revolutionized the world through their belief in better things to come; things to them not seen as yet, but to be realized by confidence in the laws of nature and God. And they were not deceived; they came at last from behind the invisible.

Unbelief, on the other hand, is the nightmare of humanity, the owl of the universe, the grave of all progressive ideas. It is the Abaddon of spirituality. For evil it is mighty, for good it is the weakest of all things. It never yet originated a grand idea, never built a saw-mill, planned a spring-carriage, inaugurated a reform, or gave the world a new light in physicals or morals. It is blind in both its eyes, and never knows when good comes. Whoever yields to its influence is cast out as profane from the temple of true science. In every department of human activity it will be a failure. The men of faith will always drive it to the

wall. As they have been, so will they ever be, the leaders of the ages. The world will never call agnostics and know-nothings to the front. Atheists will be crowded back as practical shams by the earnest nations crying out: "Who can tell us what they know? Give us that which is better than the past, or else keep silence." If immortality is not a dream, those who throng its gates will not enter with discordant voices, shouting: "We know not God—there is no God—there are many gods—conscience is artificial—we were not responsible for our belief—let heaven open and let honest men in, no matter what they believe—believers and unbelievers, those who knocked to enter in, and those who thought there was no eternal life to gain, have an abundant entrance into everlasting habitations!" Honesty is a passport to eternal life, but it knows what it believes, and is not everything by turns and nothing long. It has always a good experience to relate.

JOHN WAUGH.

OBJECT OF LIFE.—Every man and every woman has his or her assignment in the duties and responsibilities of daily life. We are in the world to make the world better; to lift it up to higher levels of enjoyment and progress, to make its hearts and homes brighter and happier by devoting to our fellows our best thoughts, activities, and influences. It is the motto of every true heart and the genius of every noble life, that "no man liveth to himself"—lives simply to his own selfish good. It is a law of our intellectual and moral being that we promote our own happiness in the exact proportion that we contribute to the comfort and enjoyment of others. Nothing worthy of the name of happiness is possible to the experience of those who live only for themselves, all oblivious of the welfare of their fellows; and it is from such as these the cry of disappointed, selfish natures comes—"Life is not worth living." D.

FACES.

I QUESTION every face I meet,
At home, abroad, on crowded street;
I say, O Face, reveal to me
What kind of soul looks forth from thee!

So many hide beneath a mask,
So few will grant me what I ask;
So few with honest, level eyes,
That waver not, nor shun surprise.

I am not curious; have no right
To challenge any one at sight;
'Tis little pleasure, little gain,
And often I am filled with pain.

Why should I ask? why should I care?
It is but instinct; unaware
We follow some mysterious law,
That saves us oft from tooth and claw.

Who has not felt a righteous hate
When through some loop-hole in the gate,
Fast closed by cunning and deceit,
Strange eyes his own have chanced to meet?

All things at last come to the light,
Though hidden long from human sight,
And faces, be they stone or clay,
The secrets of the soul betray.

THE LATE ARTHUR ERASMUS BRINKWORTH.

IT was with much regret that we learned through a recent letter from England of the death of this extraordinary young man, the son of the Rev. J. A. Brinkworth, a valued friend and most earnest disciple of Phrenology. He was born January 9, 1866, and from childhood was distinguished for his large head and great mental capacity. Fearing the effect of too much brain activity, it had ever been the chief study of his parents to promote the physical development so that his great brain might be supported. To all appearance they had been successful, as during the last three years of his life he enjoyed excellent health, measuring forty-two inches around the chest. A constitutional biliary trouble, against which all the resources of hygiene were marshalled in vain, was the cause of his death. The exceptional talents of the young man, aided, of course, by the prominence of his father as a minister in Saffron-Walden, where he lived, made him an object of marked attention. A sketch of him in *The Christian Life* says: "The versatility of mind in this youth was remarkable, even in regard to abstruse thought and scientific subjects; French, Latin, mathematics, botany, astronomy, physiognomy, were familiar subjects to him. He was a living dictionary, and a human geography. With music he excelled, and particularly enjoyed the

classical. We have often, says our correspondent, felt entranced whilst listening to his vocal and instrumental abilities; nor can we forget the interest taken in the lad by our venerable townsman, Mr. John Frye. The General Baptist Chapel suffers an irreparable loss by his decease; as organist, secretary of the chapel committee, assistant superintendent of the



ARTHUR ERASMUS BRINKWORTH.

Sunday-school, chapel warden, etc., he was eminently useful."

Mr. Short, a phrenological examiner, of Bristol, who knew young Brinkworth as a child, prepared the sketch of which the following is an abridgment:

The phrenological developments of Arthur Erasmus Brinkworth were of such an extraordinary character, in volume and

dimensions of such great bulk, as to present features of unusual interest to every student of Phrenology, affording at the same time evidence of so striking a nature as to convince the most skeptical who may have known him, of the truth of the doctrines propounded by Dr. Gall and others, relative to the functions and physiology of the brain.

It is an easy matter for the practical phrenologist to find ample confirmation of these principles in the ordinary walks of life. Every case that comes under his observation can have but one effect, viz. : that of establishing him in the genuineness and importance of the work in which he is engaged. However, the evidence supplied by such cases as range no higher than mediocrity is for the most part of an ordinary character, and oftentimes amount to negative proof only. But in developments of such remarkable dimensions as that which we have before us we record a case of more than ordinary interest, and one which leaves no room for doubt.

Such characters, like stars of the first magnitude, shine forth with a lustre peculiar to themselves, and can not fail to arrest the attention of the most casual observer, and to establish in a most incontrovertible manner the teachings of Phrenology.

On making a phrenological examination of A. Erasmus Brinkworth, some ten or twelve years since, I found a most decided preponderance of the cerebral temperament, the brain being exceedingly large for the age, yet to all appearance well formed and healthy. The development of brain in the region of the reasoning and imaginative faculties was exceedingly large, indicative of great originality of mind, depth of thought, planning and designing ability, suggestiveness of fancy, and intense desire for the acquisition of knowledge. So capacious were the chambers of thought, so ample the tables of memory, that impressions registered thereon or scenes viewed, books read, that ideas, reasonings, upon numerous and diversified subjects, would be easily appropriated and retained. It was a character of which one

might—other things being equal (*i. e.*, digestion, lungs, and heart)—have predicted a brilliant and successful future, and that in the world of invention, mental or moral philosophy, law or medicine.

The thinking and reasoning powers being much greater than Language, with Cautiousness and Secrecy full and large, much restraint would be put upon expression. He had the simplicity and modesty of unaffected childhood, combined with the capabilities of a gigantic intellect, which would enable him to grasp difficult subjects, great questions, and profound problems. The extraordinary size of the head, *twenty-five inches* in circumference, when sixteen and one-half years old, and its great development in length and breadth, gave it the appearance somewhat of flatness on the top, which, however, was rather apparent than real, the actual depth of the brain convolutions being unusual.

Conspicuous among the moral group of organs were the faculties of Benevolence and Marvellousness, and not less conspicuous in the character was that kind, sympathetic feeling, mingled with agreeableness, cheerfulness, and pleasantness, the outcome of Benevolence, Suavity, and Mirthfulness, all of which qualities were large; while large Marvellousness, with a high mental temperament, and a fine-textured organization, indicated great sprightliness of thought and feeling, which tended to subdue all the more turbulent elements, and to present that of a calm, peaceful, amiable disposition—qualities that would not fail to gain the affection and esteem of all who knew him, and to win his way among friends or strangers.

Not the least prominent faculties were those of Tune and Constructiveness, which as an amusement or as an accomplishment would enable him to attain to excellent results in instrumental music.

On the whole, it was a character of extraordinary promise for the future. The great and primary consideration being not how much to attempt and accomplish, but how to so moderate the

mental efforts as to afford rest to the mind and body with a view to the development of the powers of the latter, and thus avoid permanent injury to health.

That every attention was paid to these physiological laws during his childhood and youth by his parents, was attested by the great improvement in his physique during the latter years of his life; as also by the fact of his surviving the strain that the very large brain must have been upon the body whenever moderately exercised, until the age of seventeen years and three months. For *minus* the most

careful habits and correct physiological living, as regards study, diet, and exercise, the subject must have died at a very early age. But by constant watchfulness and attention to these matters the life was comparatively prolonged for the pleasure and comfort of fond and loving friends. What successes he had attained were not the result of cramming, or forced education, but rather in spite of all restraints in the contrary direction, and were therefore only the early promise of the possibilities of the future should his life be spared.

LANGUAGE.—No. 5.

PRINTING—EXTENSION AND PROGRESS OF THE ART.

THE art of printing was still a secret, or at least the monopoly of a close corporation, until the year 1462, when the city of Mentz was besieged, taken, and plundered by Adolph II., Elector of Nassau, who claimed the bishopric. The little band of printers was now broken up and scattered all over Europe, carrying with them their knowledge of the new-found art.

When books were made by the slow process of handwriting, they were necessarily very expensive. It is recorded that a Countess of Anjou once paid for a book of homilies in manuscript two hundred sheep and five measures each of wheat, millet, and rye. It is true that higher prices even than this have since been paid for printed books, as we have already seen; but such have been mostly rare copies such as those described, bought up by bibliomaniacs and collectors as curiosities, and their price, of course, affords no criterion of the market value of printed books generally; but the price of any manuscript volume was almost the value of a dukedom, and princely revenues only were equal to the purchase of such. They were, in fact, so costly that none but kings and princes could buy them, and any books not owned by these were mostly the property

of monasteries and religious houses. Many of them were made by the monks in their leisure hours. In these early times even the loan of a book was considered an affair of such supreme importance, that in 1471 Louis XI., King of France, wishing to borrow a volume from the Faculty of Medicine in Paris, was compelled to deposit a large quantity of plate, and, beside that, to get some of his nobles to join him in a bond under a heavy penalty to restore the book before he could accomplish the loan.

Books at the time we are speaking of were almost wholly of a religious character—Bibles, prayer-books, and books of homilies; no others were composed; and they were generally in the Latin tongue, as were the first printed books. But the invention of printing changed all that. Not only did books now become so cheap as to be within the reach of all, but books other than Bibles, missals, etc., appeared and began to circulate; and that not in a dead language alone, but after a little while in the living tongues of Europe, so that every man could read the printed page in his vernacular. Knowledge spread abroad and general intelligence increased. A new light had dawned upon the world of Europe, and the avidity with which books were

bought and read showed that the same thirst for knowledge which had characterized our first mother still survived in the breasts of her children. They had now a means of satisfying that thirst before unknown, and they availed themselves of it to the fullest extent. And the more they read, the more they wished to read; the passion grew by what it fed on. A revival of learning followed; the dense clouds of ignorance and superstition were rolled back, revealing the bright skies of intelligence and culture; the schoolmaster got abroad; the dark ages came to an end, and the period of the *Renaissance* was begun.

Kings and princes hailed the advent of printing as a new minister to their pleasures, but its true mission was not at first perceived or even suspected. This was to educate the people, spread abroad the principles of civil and religious liberty, and make known to them their rights as men. When the archbishop with weapons of this world scattered the coterie of printers, it was like the sending forth of the foxes and firebrands of Samson which carried conflagration into the fields of the Philistines. As soon as the effects of the new discovery in the above-named directions were seen, these aristocrats who had at first patronized the art now turned against it, and then came *indices expurgatorii*, and later the censorship of the press. But it was now too late; advancing intelligence had by this time gotten too firm a hold upon the popular mind to be supplanted by any such puny efforts as these.

In the revival of letters, Italy—once the home of learning and of the liberal arts and sciences—seems to have taken the lead. Of all the books issued from the press in the 16th century, one-half were Italian, and one-half of this half were published in Venice; one-seventeenth only of the whole number were English. The first book ever printed in the English language, and, subsequently to this, the first printing done in England, were by Caxton, who introduced the art into his native country.

William Caxton was born in Kent, England, in 1413. When fifteen years of age he was apprenticed to a merchant in London. For his integrity and good conduct his master, dying, bequeathed to him a small sum of money as a capital upon which he might begin to trade on his own account. He was soon afterward appointed by the Mercers' Company their agent in Holland and Flanders, in which countries he spent most of his time for the next twenty-three years. In the meantime, Margaret, sister of the English King (Edward IV.), had married Charles the Bold, and went to the Continent to reside. Meeting there with her countryman, she attached him to her household. About this time the new invention, the art of printing, was exciting much attention, being everywhere spoken of and talked about, and it was determined at the Court of the Princess to have a book printed in the English tongue. For this purpose she, assisted by Caxton, made a translation into English of the *Recueil des Histoires de Troyes* from the French of Le Fevre. Then Caxton—at a great expense of time, labor, and money—procured the types to be made, and, with indefatigable industry, made himself a complete master of the art of printing as then known. With such assistance as he could obtain he set up the book and printed it—all of which was done at Cologne in 1471, and was the first printing ever done in the English language.

In the following year, viz., in 1472, Caxton returned to England, where, in one of the chapels of Westminster Abbey, he soon afterward set up a printing-press, and two years later issued therefrom his first book—the first printed in England; it was entitled: "The Game and Playe of the Chesse: Translated out of the French and imprinted by William Caxton. Fynished the last day of Marche, the yer of our Lord God, a thousand foure hundred lxxiiij." He subsequently printed and published other books to the number of sixty-four in all, mostly translations of his own from other tongues.

Although printing had now become

general throughout the whole of Europe, there was a vast difference in the style and execution of the work between the books made at that early period and those which have been made since. At first the sheets were printed only upon one side and their backs pasted together. The pages were without running title, and were not even numbered. The character employed was a sort of rude gothic, somewhat resembling handwriting, which it was designed to imitate. There were no paragraphs, and scarcely any division between the words. In some books the want of paragraphs was supplied by occasional touches of red or blue ink on the first letter of a sentence. At first no capital letters were used, even at the beginning of sentences. It was only at a subsequent period, after the printers had begun to make paragraphs, that illuminated capitals were introduced at the beginning of each by way of embellishment. Then the space to be occupied by them was in composition left vacant, and the capitals put in afterward by hand. No punctuation-marks except the period and the colon were used at first. Subsequently the *vergule* /, precisely like the period or full-stop of some phonographers, indicating a still slighter pause, came into use. This afterward became the comma, as we have it now. The forms of books were usually folios, sometimes quartos. Their bindings were massive and costly, heavy oaken boards covered with leather (generally hogskin) or vellum, and ornamented with metallic studs, bosses, and clasps.

But improvement in the art of book-making in its every department commenced at an early day. One of the first and most important of these improvements was the introduction of what is known as Roman letters, by which, among other advantages, three pages of manuscript were reduced to one of print. These were not first used at Rome, as the name would seem to imply; nor was their inventor a Roman citizen, or even an Italian—this was Nicholas Jensen, most

likely a Hollander. He learned his trade of printer with Gutenberg at Mentz in 1458. We find him afterward printing at Venice about 1464 or 1465. It was here that he invented and first used the Roman character. It was first used at Rome in the year 1467. The first book in which Roman letters were used in Germany was printed by Ginther Zainer at Augsburg in 1468. Roman letters were introduced into England by Wynkyn de Worde, Caxton's foreman and successor. They were at first employed by him to distinguish remarkable words or passages, as is now done by italics. Italic letters were invented by Theobaldus Manutius about 1476. It is believed to have been imitated from the handwriting of Petrarch. The first book printed in this character was an edition of Virgil published in 1501. Aldus—to which dimensions his name has been contracted—also made improvements in punctuation, besides others. He was a famous printer in his day, besides being a learned man and a philosopher. The works that came from his press, known as the Aldine Classics in Greek and in Latin, have been celebrated both in prose and in verse. Some of them are still extant, and are much sought after by lovers of rare old books. In 1476 Aldus cast a Greek alphabet and printed a Greek book. Some of his Greek works were interleaved with Latin translations. He finished the publication of his Latin classics in 1494. In 1500 he printed the first part of his Polyglot Bible—the Hebrew, Greek, and Latin being on the same page. His Greek types and books were made with the assistance of Greek fugitives from Constantinople—that city having been captured by Mohammed II. in 1453. In 1465 Schweynheyum and Pannartz, who printed first at Subiaco and afterward at Rome, introduced a new type very closely resembling the Roman letters. It was professedly derived from the best handwriting of the age of Augustus. In the "Commentary of De Syra on the Bible," printed by this firm in 1471, are to be found the first Greek letters worthy of the name. Su-

biaco was the first place in Italy where printing was done. The Pentateuch was printed in Hebrew at Soncino in the Duchy of Milan in 1482. Irish characters were introduced to that people in 1571 by Nicholas Walsh, chancellor of St. Patrick's.

There lived in Holland in the 16th and 17th centuries a remarkable family, three generations of whom were printers—the Elzevirs—who did much to perfect the art. Their books were distinguished for their great excellence and elegance. They too are still highly prized by bibliophiles. These have been followed by successive generations of other worthy printers, who have from time to time made further improvements in the art, and to whom much credit is due, but, for want of space, we can not make mention here of even the most conspicuous of them. Hence, we will pass over all of these without stopping, until we come to the printers of our own time and country. This country has in its time produced some famous printers, and some men who, after serving an apprenticeship at the case—in itself a liberal education—have acquired fame and position and influence as well as affluence in other walks of life. It has produced at least one printer of world-wide celebrity as statesman, diplomat, and philosopher—we mean our own Benjamin Franklin; erewhile member of the Continental Congress, Minister to England and to France, and first Postmaster-General of the United States. His name will never be forgotten while newspapers continue to be printed or electric telegraphs exist to transmit intelligence to them.

The first printing on the western continent was done in the City of Mexico in the year 1544. We have before us a list of eight books in the Spanish tongue printed there by different parties between that date and 1571, which are still extant, all but one of them being in a private library in Providence, R. I. The other is in the possession of Gen. J. W. Phelps, of Vermont. It will be necessary to specially mention but one of these, namely, the

one first printed. This is *Doctrina Christiana, etc.*, "Christian Doctrine for the Instruction and Information of the Indians, in the Style of a History, etc." It is a small quarto volume, printed by Juan Cromberger in 1544, on a press and with types brought from Europe. The first printing in the North American colonies was done by Stephen Daye at Cambridge, Mass., in 1639. His press and types were brought from England.

Since the times above alluded to, the art of printing, in all its branches, has made immense strides both in the old world and in the new. Here, the making of books has become one of the principal industrial pursuits of our day and gener-



THEOBALDUS MANUTIUS.

ation, involving not only the investment of a large amount of capital, but requiring business capacities of a superior order. The printing and publishing establishment of one of our great book-making firms, such as that of the Harpers, the Appletons, or the Lippincotts, is a world in itself, counting its employes, male and female, by hundreds. Division of labor is there carried to an astonishing length. Hence we have compositors, pressmen, proof-readers, folders, binders, salesmen, clerks, etc., etc.; who, aided by machinery of the most improved construction, driven by steam power, and with every labor-saving appliance, produce books by the ton; of such excellence in quality, such elegance in style, and so moderate

in price, that when we contrast the olden time, when a copy of the Sacred Scriptures in manuscript sold for six hundred crowns, with the present era, when a fair copy of the same in print can be bought for half a dollar, we are filled with amazement.

There is, however, one process which has not yet been mentioned, and without some notice of which no history of printing would be complete, as it is one which has contributed a large share toward bringing about the results above indicated. We mean the process of stereotyping. The early printers did their printing directly from the type as it stood locked up in the form. After an edition of any book had been printed, the type was distributed; and if at any future time one or more other editions of the same work should be wanted, for these the type must be set up each time anew. Now, however, all book-printing, with scarcely an exception, is done from stereotype plates. The stereotype is the invention of William Ged, a goldsmith of Edinburgh, in 1731. It was introduced into this country in 1813 by David Bruce, a type-founder of New York. A matrix or mold of plaster of Paris, or of clay mixed with plaster—for there are two processes—is made upon each and every form representing a page of the book to be printed. A plate of ordinary type metal, about one-quarter of an inch in thickness, is then cast in this matrix, one side of which is an exact reproduction of the face of the form in type. This plate is then mounted upon a backing plate of wood of the requisite thickness, and a number of such mounted plates being fastened in a chase, the printing is done from them. After an edition has been printed, the plates are separated from the backing blocks and stored away in some safe place, usually in a fire-proof vault, for they are valuable. In case any subsequent editions of the same work should be called for, the plates are brought forth as often as required. Of a book that finds favor with the public and meets with a large and ready sale, a great many editions may be demanded.

THE NEWSPAPER.

But the agent most relied upon in modern times for the dissemination of intelligence, is the periodical press, especially newspapers. As monthly and other magazines are embraced under the head of periodicals, we will speak of them first, not because they were first in the order of time, for they were not, but they seem to form a necessary connecting link between books and newspapers, possessing some of the characteristics of both. And in order to begin at the beginning, we must go back again to the old world.

In the year 1730, or perhaps earlier there appeared in London a publication entitled "Memoirs of the Society of Grub Street." It was a species of literary lampoon issued in numbers, though irregularly; but it was received with immense favor. Acting upon this hint, Mr. Edward Cave established the *Gentleman's Magazine*, edited and published by himself. The first number was issued in January, 1731, the subsequent numbers monthly. This was the first monthly magazine, and it met with a great and immediate success. So great indeed as to bring several rivals into the field very soon afterward. The *London Magazine* was started in the following year by a company of booksellers, and the *Scot's Magazine* in 1739. These were after a time followed by a number of others, three being begun in one year, viz.: in 1761.

In this country the first monthly magazine was established in Philadelphia by Benjamin Franklin, in 1741. A number of monthlies were started there between that time and the end of the century; a *Ladies' Magazine*, the first of its kind, and a monthly in Boston, all of which seemed to have enjoyed a very brief existence. During the first half of the present century, a number of magazines, published monthly, sometimes more frequently, were started in this country, of which the history may be summed up in very few words. They were born and they died, as they deserved. For as to

their literary contents, they were nearly all of the most trashy character. The only exceptions to this were: *Salmagundi*, published in New York, and edited by Wm. and Washington Irving and Jas. K. Paulding. It was commenced Jan. 24, 1805, and issued somewhat irregularly for a year afterward, twenty numbers being published within that time. The *Analectic Magazine*, begun in Philadelphia in 1813, name afterward changed to *Select Reviews*. To this Washington Irving contributed during the first two years of its existence. Paulding and Verplanck were also contributors. And the old *Knickerbocker Magazine*, published in New York, might perhaps be mentioned in this connection. It was not until the end of 1850, when the Harpers commenced the publication of their *New Monthly*, that we at length had a magazine worthy of the name, established on a permanent basis. This has been followed by a number of others equally good, but they are all too well known to the reading public to require any notice at our hands. Nearly every trade and profession, and some lines of business have now each their own organ, usually published monthly—though sometimes weekly—devoted, each to the special interests of its own class; and some of these classes have more than one organ; the medical profession has about two score, or perhaps more of them, and published both weekly and monthly, sometimes quarterly. We have also a number of other magazines published quarterly; and these too are mostly of a high degree of literary excellence.

Sainte-Beuve, the great French critic, once made the remark in the *Revue des Deux Mondes*, that the history of journalism had yet to be written, and in his "Contemporary Portraits" the same brilliant writer enlarges upon the value of such a history, and the difficulty of producing it. This was over forty years ago, but since that time the history of journalism has been written and very well written by M. Eugene Hatin, a countryman of M. Sainte-Beuve's, in eight volumes, and in three volumes by Mr. James Grant, an English-

man. The French author, with the national *penchant* for completeness, begins his researches with the Babylonians, who, according to Josephus, employed scribes to write down from day to day accounts of public events. But these were chronicles rather than newspapers. Among the Greeks we do not discover any traces of journalism. But long before the invention of printing, before the Christian era even, they had in Rome newspapers, even daily newspapers, differing not greatly in the character of their contents from the modern dailies, and which like these collected their news by means of reporters, styled *actuarii*. These daily papers, called *Acta Diurna*, "The Day's Doings," were written by scribes, and read in the market or other places of public resort, sometimes at the head of the army. They were also sent to distant places. These newspapers are frequently mentioned by contemporary authors, and Cicero speaks of them as sheets in which he expected to find news of the city and gossip about marriages and divorces. They also contained the proceedings of the Roman Senate. In all this an analogy to modern journalism is plainly discernible. And strange as it may seem, these manuscript newspapers continued to be published for some time, even after the invention of printing. In England, too, they had script newspapers, called *Newes Letters*, before the introduction of printing there, and for some time afterward. An account of these publications, which were written and not printed newspapers, might seem out of place in an article ostensibly on printing; but no history of journalism would be complete without some notice of them, as they were the germs from which printed newspapers afterward sprang. But the newspaper in the modern sense is no older than the printing press, and in the nature of things could not be. Nothing analogous to the function which it fulfils in our present society could have been fulfilled by sheets capable of being multiplied only by manuscript.

In the matter of printed newspapers we find the Chinese as usual in advance, in

point of time, of all competitors. Soon after they had invented their kind of printing—which has already been described—namely, A.D. 911, they established at Peking an official gazette, or government organ called *King Pau*, or “Capital Sheet.” It was issued, however, only at irregular intervals until the year 1351, after which it came out weekly, and finally daily. It was published about midday and was sold for two *kesh* per copy, something less than a cent. It contained at this time nothing but orders in council and court news. Over a year ago, viz. : on June 4, 1882, however, it was entirely reorganized, and since that date has appeared in three editions daily. The first, issued early in the morning and printed on yellow paper, is called *Hsing-Pau*, “Business Sheet,” and contains trade prices, exchange quotations, and all manner of commercial intelligence. The circulation of this edition is a little over 8,000. The second edition, which comes out during the forenoon, also printed on yellow paper, is called the *Shuen-Pau*, “Official Sheet,” and is devoted to official announcements, fashionable intelligence, and to general news. The third edition, called *Tilani-Pau*, “Country Sheet,” is printed on red paper, and appears in the evening. It consists mainly of extracts from the two earlier editions, and is intended for circulation in the provinces, as its name indicates. All three of the issues are edited by six members of the *Han Sin*, Academy of Sciences, appointed and salaried by the Chinese Government. Their aggregate daily circulation is 13,000 to 14,000 copies.

As Italy supplied one-half of all the books published in the world during the next century after the invention of printing, and as one-half of these were printed in Venice, as has been already stated, the greater literary activity of the Italians above all other nations, and of the Venetians over the rest of their countrymen, which this would indicate, might readily lead us to look to the latter for the earliest production of that most potent and now indispensable agent of civilization,

the newspaper; and when we do so we are not disappointed. In Venice, then, do we find the first newspaper printed from movable types, after the method of Gutenberg. This was called the *Gazette de Venise*. Its publication commenced about the year 1563, during the war with the Turks. And for half a century it was without a rival in the world, until in 1612 the Germans undertook an enterprise of the same kind, styled *An Account of what Happened in Germany, Italy, etc.* Proceeding chronologically, we next come to England, where we find their *Newes Letters*, irregular issues already referred to as being in script, but which were afterward printed, though on writing paper, one-half of a sheet of which was covered with printing at first, the other half being left blank for the purchaser to write thereon his own private communication. Thus the country resident received from his town correspondent—they were sent from London—a letter and newspaper combined. These were, however, toward the last filled entirely with printed matter, thus passing through three successive stages of development. The first English newspaper to be published at regular periods of time was *Certain Newes of the Week*, first issued in London on May 23, 1622, by Nathaniel Butler. The next was the *London Gazette*, first published in 1642. During the civil wars in England printed narratives of the stirring events then occurring were issued by different parties at uncertain intervals. These all went under the generic title of *Mercury*, but there was never any newspaper of that name regularly issued; the seven copies of the *English Mercurie* in the British Museum are now allowed on all hands to be recent forgeries. The *Gazette de France* was established in Paris by Dr. Renaudet in 1631. Its publication was continued down to 1792, a period of 161 years. The *Journal des Savants*, commenced between 1631 and 1650—exact date unknown—still exists, having been published uninterruptedly down to the present time. The *Potoch Innikes Tedning*, the official gazette of Sweden, was

first published at Stockholm in 1644, during the reign of Queen Christina, the daughter of Gustavus Adolphus. The *Dublin News Letter* appeared in 1685 at Dublin. The first Russian newspaper was issued in 1703. Peter the Great took part not only in the composition of its editorials, but also in correcting the proofs, as appears from sheets still in existence, on which are the marks of alterations made by his own hand.

The first newspaper ever issued in the United States was a reprint made in New York in 1690 from the *London Gazette*, a single number only. The first original newspaper, consisting also of a single issue only, was printed in Boston by Benjamin Harris on Sept. 25th, of the same year. It was a sheet of four small pages, one of them blank. Yet insignificant as it was, it attracted the attention of the Colonial Legislature, which declared that it "contained reflections," etc., and that its publication without a license being first had and obtained was contrary to law, and so forbade its further publication. A copy of this single issue still exists in the State Paper Office in London. The first newspaper established here on a permanent basis was the *Boston News Letter*, published by John Campbell, then postmaster at Boston. The first number was issued April 24, 1704. It was printed on a half sheet of writing paper, twelve inches by eight in size, made up in two pages of two columns each and published weekly. Some copies of the first number are still preserved in the collection of the Boston Historical Society. After being published for nearly fifty years it was enlarged to a full sheet, and this was probably due to the advent of a rival, the *Boston Gazette*, which appeared in 1719.

The *New England Courant*, commenced in 1721, edited and printed by James Franklin, assisted by his brother, Benjamin Franklin, then a boy in his teens and an apprentice in his brother's printing office, was the third newspaper established in the Colonies, and from all accounts the first real live newspaper that had yet appeared. It seemed to have been rather too

lively for the times, for its publisher very soon found himself in difficulty with the clergy and the civil authorities, the latter of whom forbade the further publication of his paper. James Franklin circumvented his opponents in this, however, by issuing the paper in the name of his brother. Benjamin Franklin, while still a young man, removed, as is well known, to Philadelphia, and after a time was appointed postmaster of that city. He then and there commenced the publication of *The Pennsylvania Gazette*, which continued for a long period to be the leading journal of the Western Continent. During the last century newspapers were established in nearly every one of the then States of the Union. The first press west of the Alleghanies was established at Cincinnati in 1793; the first west of the Mississippi in 1808 at St. Louis, and the first on the Pacific coast at San Francisco in 1850.

All of these newspapers of which the account is given above, at least all of those printed from movable types, were weeklies. The first daily newspaper was the *London Courant*, first published in that city in 1709. The first daily paper issued in America was the *Pennsylvania Packet*, published in Philadelphia by John Dunlap. It was commenced in 1771. Its name has been changed several times since, but it still survives, and is now published under the title of *North American and United States Gazette*. The first daily paper in New York, the *Daily Advertiser*, published by Francis Child & Co., No. 18 Dutch Street, price four cents, appeared first in March, 1773. The *Boston Advertiser* was first issued about the year 1813. From these small beginnings the daily press of this country has grown to enormous proportions. Of the daily newspapers of the present era, especially of the metropolitan centers, which in enterprise, energy, extent of circulation and influence, have, from the first, taken the lead and kept it, it is unnecessary to speak here; their history and career are known to all.

The liberty of the press was at first very

much restricted, editors and publishers being frequently called upon to sustain prosecutions for libel on account of the printing of criticisms upon public men and public measures, criticisms which we should now regard as tame indeed, but which our ancestors characterized as "reflections of a grave nature." These restrictions, however, were everywhere relaxed more and more up to the period of the French Revolution, when French editors in those times of tumult, mistaking license for liberty, abused their privileges so notoriously, that a reaction took place, the effects of which were felt in England, and even extended to this country, resulting in the passage of our Alien and Sedition Laws, which provoked Thomas Jefferson into writing a new "Declaration of Independence" — in this case directed not against Great Britain, but against the United States. These laws, however, always unpopular, were soon afterward repealed, and Jefferson's liberal policy of leaving truth to wage a free fight with error, succeeded. Not until this time did the press here become truly free and independent. And from that time, that is, from about the beginning of the present century, may be dated the great and rapid growth of the periodical press in this country, and which culminated in 1875.

At the end of the year 1875 there were published in the United States and Territories and in Canada, periodicals of all kinds, 8,617; of which 782 were daily, 6,592 weekly, 791 monthly, and the remainder variously divided among semi-weeklies, semi-monthlies, quarterlies, etc. Since that time there has been a falling off. The next year, 1876, although there had been an increase in some of the newer States and Territories, showed in the aggregate a decrease, for the first time in the history of the periodical press in this country, amounting to 190 publications of all kinds. There was a still further decline afterward, the whole number of periodicals published in 1878 footing up to 8,133. And of those publications then still remaining in the field, nearly every one

had lost largely of its subscribers. The general depression in business during the years spoken of, affected publishers of periodicals perhaps more than any other class of business men. But the crisis has been passed, the downward tendency has been arrested. With the advent of specie payments, greater prosperity and better times generally, the periodical press is again in the ascendant. And without entering into any further elaborate statistics, which afford the reader but dry entertainment at best, we may conclude this branch of the subject by stating that the periodical press of the United States, both in point of numbers and circulation, is now in a more flourishing condition than at any former period, and its numbers constantly increasing, perhaps not so rapidly as in the years immediately anterior to 1875, but with a growth that is healthy, substantial, and more likely to endure. We must not, however, omit to state that included in the above are several publications, mostly newspapers, both daily and weekly, in foreign languages, to meet the wants of those classes of our population. The most numerous of these are the German newspapers; in the North-west there are some printed in the Scandinavian tongues; then there are those in French and in Spanish; and at Utica, N. Y., a weekly newspaper has been published for many years in the Welsh dialect. Each religious denomination has now also its own organ or organs, mostly weekly, though sometimes monthly.

We spoke a little while ago of the extent and variety of the operations carried on in a modern book publishing establishment; the internal economy of the establishment of a modern daily newspaper, one of the great metropolitan dailies, is no less wonderful. Division of labor is carried to even greater lengths here than in the former. Whereas, under the old *régime*, when concerns of this kind were of smaller extent, it often happened that the type-setting, proof-reading, and perhaps the folding, wrapping, addressing, and mailing were all done by

the same set of men ; the editor himself, may be, sometimes assisting, if upon occasion they were short of help. Now in the establishment of a city daily, not only is there a complete separation of the editorial and mechanical departments, but each of these is again divided and subdivided into a great number of distinct operations. By such complete organization, aided by the Associated Press and lines of telegraph over the land and under the sea, it is now possible to get at our breakfast-tables, at a cost of two or three cents, intelligence of every important event that has occurred during the previous day, in any part of the civilized world. But this result could never have been achieved but through the agency of steam as applied to printing. It would be impossible to print by hand labor the 50,000, the average circulation of a city daily, in the required time, or for the price at which newspapers are now sold. The first cylinder printing machine to be operated by steam was invented by one Nicholson, and patented by him in 1790. It does not seem to have been a success, however, although nearly every one of its principles were embraced in the rotary steam presses made subsequently, and which were successful. The first successful rotary printing machine was made by Koenig for the London *Times* in 1814, and the issue of that paper of November 28th of that year was the first ever printed by steam power. This press delivered about 1,100 impressions an hour, but could, when worked to its highest speed, deliver 1,800 impressions in that time.

Otis Tufts, of Boston, inventor of the vertical railway, or passenger elevator, perfected the first steam power printing-press in this country in 1837; and in the manufacture of steam printing machines, America now leads the world. Our steam presses have been sent to nearly every country in Europe, and even to Australia. The steam presses in use twenty years ago, were, the largest of them, such as Hoe's ten-cylinder press, immense affairs, occupying a good-sized basement, where they were,

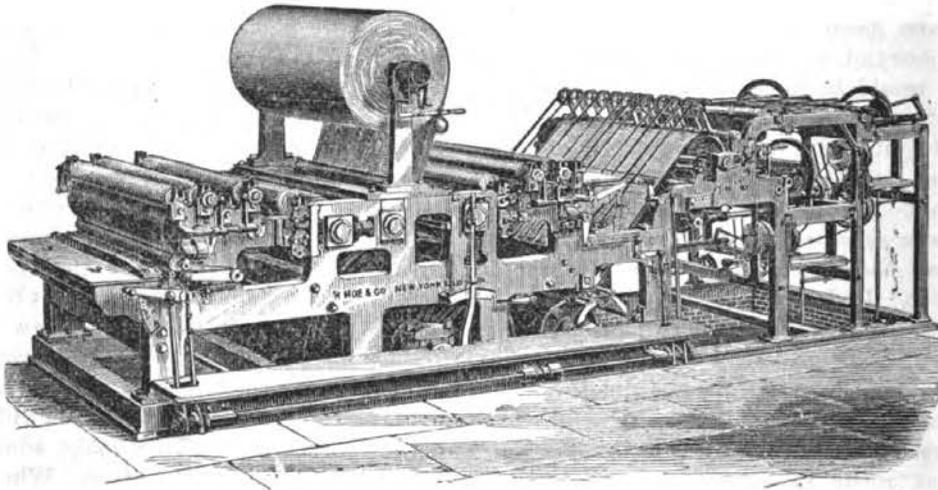
as now, generally located, and extending into the next story above; and when in motion one of them made more noise than a threshing machine. The paper on which the printing was to be done was in separate sheets, and a feeder was required to each one of the ten cylinders. They could print from 10,000 to 12,000 papers in an hour. Now they have what they call "web printing machines," the invention of William Bullock, of Philadelphia. These print from a continuous roll or "web" of paper four and a half miles in length. Improvements have been made upon the first machines by their inventor and by others, who have since built printing machines on the same principle, until now we have a press which will ink the forms, dampen the paper, print it on both sides, cut the papers from the roll either before or after printing, count them, and deliver them at the rate of from 15,000 to 20,000 in an hour, and even 25,000 an hour when driven at the highest rate of speed. One of the seven Bullock printing machines in the office of the New York *Sun*, it is claimed, can print 35,000 copies of that paper in an hour. These web printing machines occupy comparatively but little space; the largest of them being about twenty feet in length by six feet wide and seven feet high. They make some noise when running, it is true. When half-a-dozen of them in the same apartment are running at the same time, there is considerable of a din. The Hoe Company has greatly improved upon its older machines, and has one in a New York newspaper office, which prints with great rapidity from the type, rendering the stereotyping process unnecessary. Presses of this sort require but little attention when in operation, and at most two men. They are practically automatic in their action, and once put in motion they will print as long as they are kept supplied with ink and paper, and the steam holds out

Notwithstanding the aid derived from steam power, daily newspapers could never have been produced for the low price at which they are at present sold, but for the intervention of another expedient, almost

as essential to the success of the enterprise as steam itself. We have stated the circulation of an average city daily to be about 50,000 copies; but there are two newspapers in London which circulate daily over 100,000 copies each, and there are two in the city of New York, the daily circulation of each of which amounts to the same figure; at least on special occasions, as on the meeting in convention of one of the great political parties to nominate a candidate for the presidency, the occurrence of some great disaster on land or at sea, or the like, when the public are unusually eager for news. At the time of

tions between the time of going to press in the small hours of the morning and an early sunrise. This could be done only by setting several presses running at the same time. But to set up the paper half-a-dozen times, consider how many compositors would be required, how much room they would occupy, and how much all this would cost.

But the problem has at length been solved by the introduction into newspaper printing of the stereotype. Book stereotyping has already been described. In stereotyping for newspapers the process is not greatly different from that, ex-



R. HOE & CO.'S STEREOTYPE PERFECTING PRESS. PRINTS 30,000 SHEETS AN HOUR.

the Franco-Prussian war, the sale of newspapers in London was limited only by the ability of the press to supply them. When the circulation of the *New York Weekly Tribune* was over 200,000, it required two days to print an edition on one of Hoe's fast ten-cylinder presses. This may do for weekly newspapers, as they are not so much relied upon for news; but for a daily it would not answer at all. There is no merchantable commodity in its nature so perishable as news. What is news in the morning at breakfast-time, is, in the afternoon, no news, and has then no commercial value as such. The problem then was to print the whole of one of these immense edi-

cept in the material of which the matrix is made, which in this case is *papier mache*, simply paper. The advantages which this possesses over plaster or clay, are, the readiness with which it can be made to dry and harden, and the facility with which it can be made to assume the semicircular form required for a cylindrical press. The paper matrix is made by laying a sheet of moderately thick unsized paper, something like blotting-paper,—the smooth surface of which has been treated with powdered French chalk,—upon the form previously oiled, adding thereto successive layers of tissue paper, dampening the whole and covering it with a wet cloth. The paper

is then beaten into the interstices of the type with brushes. The wet cloth is then removed, a reinforce sheet of the thicker paper added, and the beating renewed. Sometimes instead of beating with brushes, a blanket is thrown over the paper as it lies upon the form, and the whole put in a press, by means of which the same result is reached; the press being warmed by jets of gas in order to accelerate the drying of the matrix. The whole operation requires but a few minutes, while by the processes employed in book stereotyping as many hours would be necessary. With daily newspapers, the whole matter is a question of time; time is the main factor in the problem, everything hinges upon that. The matrix when completed is simply a sheet of pasteboard the size of a newspaper page, one side of which presents the reading matter of a page, engraved, as it were, in intaglio. This is laid, face upward, in a semicircular iron casting box, to the shape of which it readily adapts itself; the box is then closed, leaving one end open for the entrance of the molten metal, tilted to an upright position, and the metal poured in. The stereotype plate thus cast, about one-half inch in thickness, is partially cooled by throwing upon the casting box a few dipperfuls of cold water; the box is then opened and the plate removed to a sort of horse, which it fits like a saddle, and the ragged edges pared off with chisels; after which it is transferred to the cylinder of the printing machine. In a daily newspaper there is always one page, the form for which is not locked up until near the hour of going to press, in order to get the very latest news. All the other forms have been previously locked up and stereotyped, as many plates being made from each as it is intended to have presses running. As the hour for going to press approaches,—about 2 A.M.,—the last form is locked up and quickly stereotyped the same as the others, the plates adjusted to the cylinders of the rotary presses, and the machines put in motion. At 3 A.M. the morning papers are to be

found in all the down-town hotels, restaurants, and saloons open at that early hour, though all the sheets are not struck off until an hour or an hour and a half later. Newspapers that issue two or more sheets go to press with the sheets containing advertisements and all matter not strictly news at an earlier hour of the night. The method of making stereotypes for newspapers originated here through Mr. Charles Craske, and was by him introduced into the office of the *New York Tribune* in 1861.

As improvements which facilitate its operations and add to its effectiveness are made in one of the machines of any given series, every other one in that series has to mend its pace in order to keep up. Newspapers were now printed so rapidly that it became necessary to provide some method quicker than manipulation by human fingers to get them out of the way of the steam press.

Steam printing machines created a demand for steam folding machines; and as necessity is said to be the mother of invention, the latter appeared in due time, but not a day too soon. Sometimes the two operations of printing and folding are combined in one and the same machine. This is the case with the Scott printing machine, made at Plainfield, N. J. This, the last outcome of American genius in the construction of rotary printing presses, is the invention of Walter Scott. It is the simplest in construction, the most compact, makes the least noise in running, and prints the most rapidly of them all, throwing off 35,000 printed single sheets an hour, more than 500 a minute, and delivering them folded, counted, and the count registered. It is 15 feet long by 5 feet wide and 4½ feet high. As we stood beside one of these machines upon a certain morning not long since in the office of the *New York Star* and saw it in operation, witnessed the marvellous rapidity with which it threw off the printed sheets, folded ready for delivery to the reader, we were astonished indeed. The thing had for us a fascination which held us chained to the

spot; and it was only when the whole of their morning edition had been worked off and the machine came to a stop, that the spell was broken.

Though answering all the requirements of ordinary newspapers, it has until quite recently been deemed impossible to adapt the web printing machines to

the finer work of illustrated newspapers; but this has at length been accomplished, and they are now used for the printing of engravings as well as of letterpress. The credit of this improvement has been claimed by the Germans, but it is really due to an American, Mr. H. J. Hewitt, a printer of New York City.

JAMES COULTER LAYARD.

DEFERENCE.

"There is a courtesy of the heart: it is allied to love; from it springs the purest courtesy in the outward behavior."—GOETHE.

"Deference is the most complicate, the most indirect, and the most elegant of all compliments."—SIR PHILIP SYDNEY.

THAT we have progressed rapidly in many things during the past century is undeniable. That we lack many of the old-time virtues and traits is also true.

As we view one and another of the mass of humanity which throng in our large cities, or cluster in our own social circle, we find that, with all our advance, we have yet one striking defect, as a people, of which one may well complain, and that is our lack of reverence and deference.

The possession of these two great traits of character made the men and women of the past perfect gentlemen and ladies.

"A gentleman of the olden school," is an expression now seldom used, and one may rightly esteem it a compliment to be likened, in any degree, to the courtly worthies of the past.

Reverence for the good, the true, and the beautiful, when seen in young or old, is always a mark of a good heart and a well-bred person. In the bustle and confusion of modern days, with some few exceptions, how few, young or old, we meet that are reverent and courteous to the aged, who have a like feeling for the Bible, religion, and other sacred things.

There is, perhaps, no intent on of being irreverent; with some it is carelessness or

thoughtlessness; some have never been taught better. Reverence is a trait of character which, if we foster, will bring us more pleasure and satisfaction in life than anything else.

Old people do not like to be pushed aside as being too old to share in the pleasures and joys of the young. They were brought up differently; they feel it more acutely than we can imagine; they are shocked at this want of respect.

It is not an uncommon thing to meet several individuals during the course of a year who complain of the degeneracy of the age: customs, habits, everything, in fact, comes under their censure; and although "comparisons are odious," they have good reason for complaint.

This lack of reverence and deference has led to many changes in customs and manners during the past fifty years. No wonder when old people were accustomed to having the younger wait or defer everything to them, that they can not understand why parents now defer to their children.

In the residence of "a gentleman of the olden school," who lived in Vermont twenty-five years ago, at the different meals during the day the younger people never sat down until he had seated himself, and always greeted him with a courteous "Good-morning, father." In the evening, when he arose from his chair to retire for the night, all those present rose also and wished him good-night, remaining standing until he left the room. All this was in accordance with the old-time

rule, "Never sit while others stand." He and his wife always led the conversation; in consequence the children were entertained with many instructive and entertaining stories about what father and mother had seen or heard. Many a tale or anecdote heard at those times was treasured, told to others, and handed down. This was a sample of every gentleman's family at that time.

All this *régime* might be kept up without making the children feel that they are performing an irksome task.

It should be a pleasure to hear and not

be heard; to listen to the conversation of those older and better able to impart ideas.

In some families of the present day, where the old-time customs of good sense and breeding prevail, the custom is to some extent still observed of having the children taught, by example and instruction, how to be courteous and deferential to those older than themselves, and to listen while others are talking.

If deference and courtesy come not from the heart, the polish is merely superficial. CECIL HAMPDEN HOWARD.

"A HORSE, SIR, IS LIKE A CHILD."

STANDING, a few days since, just outside the cabin of a ferry-boat on the Hudson, looking listlessly over the water through which we plowed our way, I heard at my side the movement of harness, and then a voice saying, in a playful tone, "Now, Kate, behave yourself." I looked round, and saw that the words came from a pleasant-looking fellow, and were addressed to a bright-eyed, powerfully built horse, against whose shoulder he was leaning.

As he stood there, the horse would throw her head around, and, opening her mouth, would reach after him, while the young man would draw back, repeating the words which had drawn my attention to him, "Behave yourself, Kate." In her ungainly way, the animal was sporting with her owner, and he was answering her playfulness.

"You seem," said I to him, "to have an intelligent and playful horse, there."

"Yes, sir, she knows all I say to her. I am accustomed to play with her; and as I am standing by her head, and touching her, she thinks that I wish to have some fun with her now. She will follow me at my call, and do anything I want her to do."

"Have you owned her a long time?"

"Not very long, sir; about a year and a half. You see she is not a young horse.

She is some twelve years old. But she can do more work, and more willingly, than any horse I ever owned, and though I am a young man, I have owned a good many."

"You did not, then, train her from the start to this gentleness and docility?"

"Well, sir, not exactly. Yet when I first bought that horse she was a very different beast. Why, sir, she was ugly and stubborn, and if you put a moderate load behind her, she would, likely as not, refuse to budge a step. But when I saw how she was handled by the man that owned her, I knew what was the matter. The owner was cross and ugly to her. He beat and banged her about, and hallooed angrily to her. That made the horse ugly. You see, sir, a horse don't like that. If you are ugly to them they will be ugly to you. He could not make her move with the load of twenty-five hundred we had put on the dray. I said to him, 'Let me take the lines.' He gave them to me, and I went to the horse's head, patted her, and spoke softly and kindly for a few moments to her, and then told her to go on. Why, sir, she moved right off! Then we put on the dray a load of forty hundred, and I just said to her, 'Go on, Kate,' and at once she started, as if the load was nothing. You see, sir, a horse is like a child;

he will be just what you are to him. The man that owned her said, in surprise, 'If she would only do as much as that for me, I would never let you have her.' He did not understand that you must be kind to an animal like her. When I am harnessing her, or when I come home with her, I romp with her, and she enjoys it. She will do anything for me."

I let him talk on. To a man who has a good horse, you can do no greater favor than to listen attentively and with interest while he tells you all about the qualities of the animal. You could cool off an angry man, if you could only get a chance to stroke the neck, and look admiringly at the flank of his horse. We soon reached the wharf, and parted. We shall not meet again, but I shall remember one thing that he said, "You see, sir, a horse is like a child." That remark showed insight.

I wish that a good many parents, some that I have seen, and whose words I hear in my walks, could learn just a little of what my acquaintance on the ferry-boat knew so well. "If you are ugly to them, they will be ugly to you, sir." So he said, and he was right. "He banded about that horse and spoke angrily to her, and it made her stubborn." That was it. It was not wonderful.

It is so with children. Do you think that it is in human nature to be otherwise? Just remember. Were you ever

called at sharply and angrily? Do you not remember just how the voice seemed to stir up all that was determined in you, and make you, almost in spite of yourself, stubborn and willful?

When I hear how some mothers and fathers speak to their children, I am not surprised in the least that they are disobedient. I think that I would be so too. I could not help it. The only relief I could find would be in being ugly. The very tone of voice has something in it that rasps you that are older, while it tears into the sensitive nature of a child.

"Oh, they get used to it," some one says, "and do not mind it." There is what is very sad in that, if it is so. It can only be because your child has grown hard. The feelings must be callous, when harsh words do not wound or excite anger. You can make an infant lip quiver by the tone of voice. You must not forget that the cords are not broken. They will vibrate at your call in the aftertime.

You that have spoken roughly and often harshly to your children, try the gentler ways. Soften the voice. Let it have the melody of kindness and affection in it. There are little faces that will look up wonderingly, perhaps, at first, but the boys and girls will surprise you with their smiling obedience and manifested affection.—From "*A Bachelor's Talks about Married Life.*"

TO A FLOWER.

[FROM THE SWEDISH.]

Thy trance is broken now ; veiled no more, thine eye

With a glowing gladness, turneth to the sky,
Where the crimson morn, adown the azure beam-
ing,

Folds the bridal breast, of purple Nature dream-
ing.

How calm thy lonely round, all is tranquil here ;
Of rapture dies the breeze that's hovering near ;
With his golden wing, the gay deceiver gleameth,
Say, thou little one, how fair the bright world
seemeth.

Sweet, caressing zephyr, morning's dewy kiss,
Butterfly's soft whisper, bring thee only bliss ;
Sure thou canst not see how soon their fondness
fading,

Leaves but tears for thee, all thy brightness
paling.

Oh! wherefore, gave not He, th' Almighty
Power,

Eternal Spring to thee, thy beauty's dower ?

Ever fair and bright, as morning's blue-eyed
greeting,

With thine angel face, the golden noontide meet-
ing.

Yet smile on, little flower so pure and fair,
Thou'lt find some bitter hour, how earth's joys
wear ;

And think of the happy day, thy heart so beam-
ing

In the bud's soft cradle lay, so sweetly dreaming.

LYDIA M. MILLARD.

WHAT IS LOVE?

THERE is probably no subject in all the vast realm of subjects that has been so much speculated about, and has received so much attention from all thinking people, as that which we will call the attraction of opposites, generally designated at its first appearance as love. We are astonished, but not perplexed at the harmonious blending of opposites in physical nature, and we have some faint inkling of the causes that obtain in the swift union and wonderful results of the introduction of an acid to an alkali, but we are utterly swamped when we endeavor to find a philosophical and common-sense reason for the attraction that exists between the fine and the coarse, the refined and the vulgar, the honest and the dishonest in human nature. If these attractions were not as a rule fleeting and ephemeral, scarcely ever enduring after marriage, it would not be so difficult to ascribe a reason at least for the very common phenomena. But these attractions, though strong and passionate as the deepest affection, are rarely ever lasting, or rather they do not last after a close acquaintance. For example, take the young lady who was willing to leave kindred, wealth, society, and all the refinements and luxuries to which she had always been accustomed, to share the fate of her father's coachman. In this case the reaction from the singular fascination is said to have occurred within two days after the nuptial knot was tied. The sweet and subtile something which had not only made it possible for this girl to turn her back upon a parent's love, and a luxurious home, but easy, and above all things desirable, began to change into another subtile something just as soon as she was taken into the more private and inner life of this man whom she had chosen for her husband out of all the world. At first it was a slight, and to her a most unaccountable aversion. The man was kind, and as considerate as he knew how to be. There was nothing to find fault with. She had no wish to pick

flaws. On the contrary, all the pride of her nature was in arms against any falling off of the strength of her affection. She had taken a step which all the world disapproved. Before marriage she had been as confident of the truth and staying power of her love for this man, as she had been of her own existence. The slightest touch of his work-hardened hand thrilled her with the most exquisite pleasure. No woman was ever to all appearance more madly in love. No music was sweeter to her ears than his coarse and ungrammatical language. There was even an extra fascination about this disregard of conventional rules. She turned with real pleasure from the conversation of scholars and the refined gentlemen of her own set to the society of this man, who didn't know a noun from an adverb, and who was as destitute of any intellectual originality as a clam. This slight and inexplicable aversion after an incredibly short time, deepened into positive dislike, and the sound of his approaching footsteps which had once filled her heart with the most eager delight, came to be like the knell of doom to her. Circumstances had not been favorable to a knowledge of her husband's habits before marriage, but when she came to sit opposite him at table, and had ample opportunity to observe the way in which he partook of food, this love upon which she had built such fond hopes of an eternal union, began to totter and tremble upon its throne. Because this man shoveled his food into his mouth with his knife, and leaned heavily upon the table as he ate, and smacked his lips appreciatively, his wife's affection, which had been warranted to stand the wear and tear of time, poverty, sickness, and death, was perceptibly lessened. Contempt in some measure took the place of the wild, passionate love which once had filled her heart. Had he been unkind and neglected her, she could still have loved him. It is probable that he might have stayed out night after night, and returned in the

gray of the morning, drunk, and bedraggled, and her affection would not have wavered—at least for some time; but vulgar manners at the table she could not bear. An occasional blow would not so quickly have knocked the love from her nature as the neglect on her husband's part to remove his hat when he came into her presence. Dissipation, neglect, and unkindness would all have had their effect in time, but not nearly so soon. So, in a very short time, aversion and contempt grew into positive hatred, and this woman's life with this man came at last to be the most awful and abject bondage possible to conceive of. The only hours that were endurable to her were those which kept her husband confined at his business.

Now, what was the meaning of this change? The influence which had attracted her up to a given point, turned suddenly to repulsion. It had been strong enough to keep her brave and determined through a series of crises which might well terrify and weaken any woman who was not sure of her own heart. It had carried her through all manner of disagreements and opposition, and made it possible for her to even consent to an elopement; but when the excitement was all over, and the time had come for the husband and wife to settle down into practical, sober, every-day housekeeping, this attraction proved to be the veriest snare and delusion, and it came to pass that two lives were wrecked. Who or what was to blame in this matter? The woman had apparently every reason for believing herself in love, and it certainly could not be expected that the young coachman could be insensible to the compliment paid to him by this beautiful member of the aristocracy, nor could he be expected to be grateful for the compliment and refuse the gift. Such an action as that could only be possible to a man of developed intellect and strong moral character. If science or experience had made known any way to distinguish the love which we know exists in this world, from a certain magnetic attraction which seems to be purely physical, and consequently exceed-

ingly swift and strong in its inception, and as swift to depart, then this woman would have been to blame; but she probably knew no better, and was as honest in thinking herself in love as the woman whose love endures. It is easy to say that the difference in the social positions of this man and woman accounted for the subsequent misery, but the same social distinctions existed when the girl supposed herself in love for time and eternity. It is doubtful even if an opportunity for a more intimate companionship before marriage had been afforded her, it would have had the effect of opening her eyes upon the true state of the case. The effect of her lover's elbows upon the dining-table, and his animal style of getting outside of his food, would doubtless have added to the unique fascination which he exercised upon her. This apparent affection which existed on the girl's part was simply a sham which perfectly resembled the real article. It was so like the real fruit for which she hungered, that it could only be known for what it was by eating it. Then it was bitter and unclean, and naturally was no longer desired. One might multiply case with case, and still be as far off as ever from getting at any truth that would be of assistance in such crises.

"Common-sense might be of service," suggests a critic. An excellent preventive of some kinds of mischief; but in a case of this kind, the glamour of the spell is so strong that it is sure to throw common-sense and judgment, and even observation entirely into the shade. Criticism comes afterward, and rarely ever in time to be of service.

A Brooklyn girl of exceptional refinement, talent, and common-sense, whose family belonged to the best society, that is, the most cultured and most truly honorable, fell in love, or thought she did, with her dancing-master, a young ignoramus, whose only claim to consideration lay in the grace and agility of his faultlessly shaped legs. This is no exaggeration. The man knew literally nothing but his profession, and for this he was

pre-eminently fitted, both by nature and education. When the pupil's admiration for her teacher came to the consciousness of her family, their anxiety can better be imagined than described. Steps were immediately taken to counteract the obnoxious influence, but as is usually the case, were too late. Opposition strengthened the bond, and after a few months of indescribable anxiety, a very quiet wedding took place at the residence of the bride's mother. It was the only course possible, as a refusal to have the ceremony at home would have resulted in a run-away performance which would have been harder to bear than the other. There was nothing to do but to allow this rarely gifted girl to throw herself away in marriage upon a man in every respect unworthy of her.

"You will see," she said to her mother a day or two before the wedding, "that I am right. You are so prejudiced against — that it may take some time before you will acknowledge it, but I know that we are exactly fitted to each other, and I should be the happiest girl in Brooklyn, if only things were different at home. But it is so strange that you, who have always been so fair and kind and unselfish, can not admit the good qualities of the man whom I so dearly love."

What could this, or any other affectionate and discreet mother say under such circumstances, knowing as did this one that destitution and unhappiness as surely waited for this girl who had been reared so tenderly and educated so carefully, as night is sure to follow the day? But the mother's judgment, derived from an ample experience, was worth nothing to her daughter. She, like all the rest of the world, must find out for herself, and suffer and regret like the rest. The honeymoon of this couple was shorter even than the wife's friends had prophesied. Just three weeks from the wedding-day the wife presented herself at her mother's door, and alone. The first glance at her haggard, sorrow-stricken face was sufficient to tell the whole story, and it needed not the subsequent broken words, "Mother, I

have come to stay," to paint the whole dreadful picture. When asked what the trouble was, she replied:

"Not one thing, but everything. It was so different from what I had expected."

"Oh, yes," the mother answered, "but if that is all, you have no excuse. Marriage is not like a garment that one can put on and off at pleasure."

The response was as desperate as it was unexpected.

"I shall not blame you if you refuse to give me shelter," she said, "but I will never speak to — again as long as I live. There is one resource left to me, and I assure you that death would be infinitely preferable to one hour of that man's society."

There was no more exaggeration about this statement than there had been about the one previously made in reference to the strength of her love for this man whom she now as strongly detested. We know that this attraction does not endure even between persons of the same social standing, and of similar tastes and culture. So it is clear that there is a something that we call love, and which lasts as long as life endures, and a something else which resembles it so perfectly that up to date there is no way to distinguish between the two. So, what is love, and what is the nature of the ephemeral attraction that closely resembles it? If the marital mistakes and miseries which have occurred in other generations could only profit this one, there would then be some good accomplished by past suffering. Perhaps there is no other way by which development can be so surely attained as by the yoking together of men and women who are totally unsuited to each other. If the intention of Divinity is to "shape our ends rough," there is certainly no rougher method that could possibly be employed. But all the same, we want to know what is love, and what is the something which is called love, but which is no more like it than the pure, newly-fallen snow is like the mud of the gutter.

ELEANOR KIRK.

COMUS:

A MASK. — BY JOHN MILTON. — (Concluded.)

Com. She fables not, I feel that I do
 fear
 Her words set off by some superior power;
 And though not mortal, yet a cold shud-
 d'ring dew
 Dips me all o'er, as when the wrath of
 Jove
 Speaks thunder, and the chains of Erebus
 To some of Saturn's crew. I must dis-
 semble,
 And try her yet more strongly. Come,
 no more,

But this will cure all straight, one sip of
 this
 Will bathe the drooping spirits in delight
 Beyond the bliss of dreams. Be wise,
 and'taste.—

*The Brothers rush in with swords drawn,
 wrest his glass out of his hand, and
 break it against the ground; his rout
 make sign of resistance, but are all
 driven in; the attendant Spirit comes in.*³⁹

Spi. What, have you let the false en-
 chanter 'scape?



THE BROTHERS ATTACK THE SORCERER.

This is mere moral babble, and direct
 Against the canon laws of our founda-
 tion;

I must not suffer this, yet 'tis but the lees
 And settlings of a melancholy blood:³⁹

³⁹ Here we have a phrase in the language of the old mediæval doctrine of the humors, which had its source in ancient times. An author, writing as late as 1594, says: "The grossest part of our blood is the melancholy humor, which is the spleen congealed, whose office it is to dispose of it; this thick-seeming fenny vapor casts a

O ye mistook, ye should have snatch'd
 his wand

mist over the spirit, and its melancholy sinketh down to the bottom like the lees of the wine, corrupteth all the blood, and is the cause of lunacy." The effect of a congested and feeble stomach and liver, as understood in pathology to-day, is analogous to this ancient guess-work, and explains it on a rational basis.

⁴⁰ The following movements of the piece are impetuous in action. The rout of Comus and his crew, and the release of the lady from the enchanted chair by the intervention of Sabrina, are both dramatic and beautiful.

And bound him fast : without his rod re-
versed,
And backward mutters of dissevering
power,
We cannot free the Lady that sith here
In stony fetters fix'd, and motionless :
Yet stay, be not disturb'd ; now I bethink
me,
Some other means I have which may be
used,
Which once of Melibœus old I learnt,
The soothest shepherd that e'er piped on
plains.
There is a gentle nymph not far from
hence.
That with moist curv sways the smooth
Severn stream,
Sabrina is her name, a virgin pure :
Whilome she was the daughter of Lochrine,
That had the sceptre from his father
Brute.
She, guiltless damsel, flying the mad pur-
suit
Of her enraged stepdame Guendolen,
Commended her fair innocence to the
flood.
That stay'd her flight with his cross-
flowing course.
The water-nymphs that in the bottom
play'd.
Held up their pearled wrists and took
her in,
Bearing her straight to aged Nereus' hall.
Who, piteous of her woes, rear'd her lank
head.
And gave her to his daughters to imbathe
In nectar'd lavers strow'd with asphodil.
And through the porch and inlet of each
sense
Dropt in ambrosial oils till she revived,

It would be impossible in a short space to expatiate upon all the beauties of diction and sentiment embodied in these lovely lines. . . . "The variety of epithets and images—the rapidity of the verse, sparkling and gleaming with the brightest sunshine of poetry—are a feast of roses to the imagination."

There is hardly a poem of this length that so addresses the higher faculties of taste—in conjunction with the moral sentiments—while its philosophical teachings and exemplifications are kindred to the best known theories of mind now entertained, and to those phases of them especially which it is the privilege of the phrenologist to set forth in his useful department of mental philosophy.

And underwent a quick immortal change,
Made Goddess of the river ; still she re-
tains
Her maiden gentleness, and oft at eve
Visits the herds along the twilight mead-
ows,
Helping all urchin blasts, and ill-luck
signs
That the shrewd meddling elfe delights
to make,
Which she with precious vial'd liquors
heals ;
For which the shepherds, at their festi-
vals,
Carol her goodness loud in rustic lays,
And throw sweet garland wreaths into
her stream,
Of pansies, pinks, and gaudy daffodils.
And, as the old swain said, she can un-
lock
The clasping charm, and thaw the num-
ming spell,
If she be right invoked in warbled song,
For maidenhood she loves, and will be
swift
To aid a virgin, such as was herself,
In hard besetting need ; this will I try,
And add the power of some adjuring
verse.

SONG.

SABRINA fair,⁴¹
Listen where thou art sitting
Under the glassy, cool, translucent wave,
In twisted braids of lilies knitting
The loose train of thy amber-dropping
hair ;
Listen, for dear Honour's sake,
Goddess of the Silver lake,
Listen and save.
Listen, and appear to us
in name of great Oceanus,
By th' earth-shaking Neptune's mace,
And Tethys' grave majestic pace,
By hoary Nereus' wrinkled look,
And the Carpathian wizard's hook,
By scaly Triton's winding shell,
And old sooth-saying Glaucus' spell,
By Leucothea's lovely hands,
And her son that rules the strands,

⁴¹ The story of Sabrina is told with much fulness by Milton in the first book of his *History of England*. See also Spenser's *Faery Queen*, 2d Book, Canto 10.

By Thetis' tinsel-slipper'd feet,
 And the songs of Sirens sweet,
 By dead Parthenope's dear tomb,
 And fair Ligea's golden comb,
 Wherewith she sits on diamond rocks,
 Sleeking her soft alluring locks,
 By all the nymphs that nightly dance
 Upon thy streams with wily glance,
 Rise, rise, and heave thy rosy head
 From thy coral-paven bed,
 And bridle in thy headlong wave,
 Till thou our summons answer'd have.
 Listen and save.⁴²

*Sabrina rises, attended by water-nymphs,
 and sings.*

By the rushy-fringed bank,
 Where grows the willow and the osier dank,
 My sliding chariot stays,
 Thick set with agate, and the azure sheen
 Of turkoiis blue, and emerald green,
 That in the channel strays ;
 Whilst from off the waters fleet
 Thus I set my printless feet
 O'er the cowslip's velvet head,
 That bends not as I tread ;
 Gentle Swain, at thy request
 I am here.

Spi. Goddess dear,
 We implore thy powerful hand
 To undo the charmed band
 Of true Virgin here distress'd,
 Through the force and through the wile
 Of unblest enchanter vile.

Sab. Shepherd, 'tis my office best
 To help ensnared chastity :

⁴² The classical allusions in this song are to Oceanus, the most ancient ocean god; the boundaries of the ocean, as traced in the Greek mythology, encircle the inhabited earth, and there Neptune rules. Neptune was a later creation of fancy. Tethys was the wife of Oceanus. In the assuring talk of the Spirit just before, we have a curious mixture of old mythology with native British legend. Nereus in the old Greek is the father of the Nereids, or sea nymphs. The "Carpathian wizard" refers to Proteus, who could change himself into any shape. Triton had a palace down in the sea, but generally rode on sea horses, blowing his shell trumpet; he was half fish and half man. Leucothea, or White Goddess, was at first a mortal, afterward converted into a sea deity. Thetis, one of the daughters of Daris, a nymph, was the wife of Peleus and the mother of the great Achilles; and Parthenope and Tigea were two singing sea nymphs.

Brightest Lady, look on me ;
 Thus I sprinkle on thy breast
 Drops that from my fountain pure
 I have kept of precious cure,
 Thrice upon thy fingers' tip,
 Thrice upon thy rubied lip ;
 Next this marble venom'd seat,
 Smear'd with gums of glutinous heat,
 I touch with chaste palms moist and cold :
 Now the spell hath lost his hold ;
 And I must haste ere morning hour
 To wait in Amphitrite's bower.



*Sabrina descends, and the Lady rises out
 of her seat.*

Spi. Virgin, daughter of Lochrine,⁴³
 Sprung from old Anchises' line,
 May thy brimmed waves for this
 Their full tribute never miss
 From a thousand petty rills,
 That tumble down the snowy hills,
 Summer drought, or singed air,

⁴³ Lochrine was the son of Brutus, who was immediately descended from Anchises.

Never scorch thy tresses fair,
Nor wet October's torrent flood
Thy molten crystal fill with mud:
May thy billows roll ashore
The beryl, and the golden ore;
May thy lofty head be crown'd
With many a tower and terras round,
And here and there thy banks upon
With groves of myrrh and cinnamon.

Come, Lady, while Heav'n lends us
grace,

Let us fly this cursed place,
Lest the Sorcerer us entice
With some other new device.
Not a waste or need!less sound,
Till we come to holier ground;
I shall be your faithful guide
Through this gloomy covert
wide,

And not many furlongs thence
Is your father's residence,
Where this night are met in
state

Many a friend to gratulate
His wish'd presence, and be-
side

All the swains that near abide
With jigs and rural dance re-
sort;

We shall catch them at their
sport,

And our sudden coming there
Will double all their mirth and
cher;

Come, let us haste, the stars
grow high,

But night sits monarch yet in
the mid-sky.

The scene changes, presenting Ludlow town and the President's castle; then come in country dancers, after them the attendant Spirit, with the two Brothers and the Lady.

SONG.

Spi. Back, Shepherds, back; enough
your play
Till next sunshine holiday,
Here be without duck or nod
Other trippings to be trod
Of lighter toes, and such court guise
As Mercury did first devise

With the mincing Dryades
On the lawns, and on the leas.

*This second song presents them to their
Father and Mother.*

Noble Lord, and Lady bright,
I have brought ye new delight,
Here behold so goodly grown
Three fair branches of your own;
Heav'n hath timely tried their youth,
Their faith, their patience, and their
truth,



THE RETURN TO THE CASTLE.

And sent them here through hard assays
With a crown of deathless praise,
To triumph in victorious dance,
O'er sensual folly and intemperance.

The dances ended, the Spirit epiloguizes.

Spi. To the ocean now I fly,
And those happy climes that lie
Where Day never shuts his eye,
Up in the broad fields of the sky:
There I suck the liquid air,
All amidst the gardens fair
Of Hesperus, and his daughters three

That sing about the golden tree;
 Along the crisped shades and bowers
 Revels the spruce and jocund Spring,
 The Graces, and the rosy-bosom'd Hours,
 Thither all their bounties bring;
 There eternal Summer dwells,
 And west-winds with musky wing
 About the cedar'd alleys fling
 Nard and Cassia's balmy smells.
 Iris there with humid bow
 Waters the odorous banks that blow
 Flowers of more mingled hue
 Than her purpled scarf can shew,
 And drenches with Elysian dew
 (List, mortals, if your ears be true)
 Beds of hyacinth and roses,
 Where young Adonis oft reposes,
 Waxing well of his deep wound
 In slumber soft, and on the ground
 Sadly sits th' Assyrian queen;
 But far above in spangled sheen
 Celestial Cupid, her famed son, advanced,
 Holds his dear Psyche sweet entranced,
 After her wand'ring labours long,
 Till free consent the Gods among
 Make her his eternal bride,"
 And from her fair unspotted side
 Two blissful twins are to be born,
 Youth and Joy; so Jove hath sworn.

"It was because Comus misapprehended life—knew nothing of it except in his alloyed counterfeit, that he had been outwitted and defeated. But there is true life, and it is to be found on earth as well as in heaven. Venus grieving over the wounded Adonis, has a significance much above the merely sensuous emotion: it represents a type corresponding with a highly spiritualized or celestial love. So, too, in the famous Greek legend of Cupid and Psyche, we have the latter representing the human soul separated from its beloved object and compelled to wander about sadly and undergo all kinds of suffering, until at last, becoming purified by trials, it is united to its beloved forever, and enjoys complete happiness.

But now my task is smoothly done,
 I can fly, or I can run
 Quickly to the green earth's end,
 Where the bow'd welkin low doth bend,
 And from thence can soar as soon
 To the corners of the moon.

Mortals that would follow me,
 Love Virtue; she alone is free,
 She can teach ye how to climb
 Higher than the sphery chim:
 Or, if Virtue feeble were,
 Heav'n itself would stoop to her.

THE END.



TWO CENTURIES HENCE.

SCENE—Library in the house of an elderly gent, somewhere in Australia. Old gent telegraphs to the kitchen, and waiter ascends in a balloon.—*Old Gent*: John, fly over to Calcutta, and tell Mr. Johnson that I shall be happy to have him sup with me. Never mind your coat now. Go!—John leaves, and at the end of five minutes returns.—*John*: Mr. Johnson says he will come; he has got to go

to St. Petersburg for a moment, and then he will be here.—*Old Gent*: Very well, John. Now start the machine for setting the table, and telegraph to my wife's room, and tell her that Mr. Johnson is coming; then brush up my balloon, for I have an engagement in London at twelve o'clock.—John flies, and the old gentleman runs over to the West Indies to buy a fresh orange.



APPARITIONS AND WHAT THEY ARE.

MANY instances have occurred wherein persons have seen apparitions. Some have believed them to be the spirit of departed friends or enemies, and others have regarded them as merely the result of the disordered action of the brain. Sometimes an object is mistaken for something altogether different and supposed to be an apparition. Dr. Hibbert, in his treatise on "Apparitions," gives the following instance: "A whole ship's company was thrown into the utmost consternation by the apparition of a cook who had died a few days before. He was distinctly seen walking ahead of the ship, with a peculiar gait, by which he was distinguished when alive, through having one of his legs shorter than the other. On steering the ship toward the object it was found to be a piece of floating wreck." Sir Walter Scott, in his "Demonology and Witchcraft," states that having been engaged in reading with much interest, soon after the death of Lord Byron, an account of his habits and opinions, he was the subject of the following illusion: Passing from his sitting-room into the entrance hall, fitted up with the skins of wild beasts, armor, etc., he saw right before him, and in a standing posture, the exact representation of his departed friend, whose recollection had been so strongly brought to his imagination. He stopped, for a single moment, so as to notice the wonderful accuracy with which fancy had impressed upon the bodily eye the pecu-

liarities of dress and posture of the illustrious poet. Sensible, however, of the delusion, he felt no sentiment save that of wonder at the extraordinary accuracy of the resemblance, and stepped onward toward the figure, which resolved itself, as he approached, into the various materials of which it was composed. These were merely a screen occupied by great-coats, shawls, plaids, and such other articles as are usually found in a country entrance hall. Sir Walter returned to the spot from which he had seen this product of what might be called imagination proper, and tried with all his might to recall it by the force of his will, but in vain.

AN INTERESTING CASE.

Not all apparitions can be resolved into these delusions, mistaking material substances for spirits of the departed. Apparitions unconnected with any material substance are occasionally seen by persons whose truthfulness is undoubted and to whom no purpose to deceive can be attributed. A case is related in the *Journal of Natural Philosophy, Chemistry, and the Arts*, London, in which M. Nicolai, of Berlin, the subject of the apparition, had for two months been much affected in mind by several incidents very disagreeable to him. He gives the following account: "At ten o'clock in the forenoon my wife and another person came to console me; I was in a violent perturbation of mind owing to a series of incidents which had alto-

gether wounded my moral feelings, and from which I saw no possibility of relief; when suddenly I observed at a distance of ten paces from me a figure—the figure of a deceased person. I pointed at it, and asked my wife whether she did not see it. She saw nothing; but being much alarmed, endeavored to compose me, and sent for the physician. . . . In the afternoon, a little after four o'clock, the figure which I had seen in the morning again appeared. I was alone when this happened—a circumstance which, as may be easily conceived, could not be very agreeable. I went, therefore, to the apartment of my wife, to whom I related it. But thither also the figure pursued me. Sometimes it was present, sometimes it vanished, but it was always the same standing figure. . . . The figure of the deceased person never appeared to me after the first dreadful day; but several other figures showed themselves afterward very distinctly, and sometimes such as I knew; mostly, however, of persons I did not know; and among those known to me were the semblance of both living and deceased persons, but mostly the former; and I made the observation that acquaintances with whom I daily conversed never appeared to me as phantoms; it was always such as were at a distance. When these apparitions had continued some weeks, and I could regard them with the greatest composure, I afterward endeavored, at my own pleasure, to call forth phantoms of several acquaintances, whom I, for that reason, represented to my imagination in the most lively manner, but in vain. For however accurately I pictured to my mind the figures of such persons, I never once could succeed in my desire of seeing them externally; though I had some short time before seen them as phantoms, and they had perhaps afterward unexpectedly presented themselves to me in the same manner. The phantoms appeared to me in every case involuntarily, as if they had been presented externally, like the phenomena in nature, though they certainly had their origin internally; and at the same time I was always able to dis-

tinguish with the greatest precision phantoms from phenomena. Indeed I never once erred in this, as I was in general perfectly calm and self-collected on the occasion. I knew extremely well, when it only appeared to me, that the door was opened and a phantom entered, and when the door really was opened and any person came in. . . . On the whole, the longer I continued in this state, the more did the number of phantoms increase, and the apparitions become more frequent. About four weeks afterward, I began to hear them speak; sometimes the phantoms spoke with one another; but for the most part they addressed themselves to me; those speeches were generally short and never contained anything disagreeable. Intelligent and respected friends often appeared to me, who endeavored to console me in my grief, which still left deep traces on my mind. This speaking I heard most frequently when I was alone, though I sometimes heard it in company, intermixed with the conversation of real persons; frequently in single phrases only, but sometimes even in connected discourse."

With the hope of obtaining relief, M. Nicolai determined to be bled. He says: "I was alone with the surgeon, but during the operation the room swarmed with human forms of every description, which crowded fast one upon another; this continued until half-past four o'clock, exactly the time when the digestion commences. I then observed that the figures began to move more slowly; soon afterward the colors became gradually paler; every seven minutes they lost more and more of their intensity, without any alteration in the distinct figure of the apparitions. At about half-past six o'clock all the figures were entirely white, and moved very little, yet the forms appeared perfectly distinct; by degrees they became visibly less plain, without decreasing in number, as had often formerly been the case. The figures did not move off, neither did they vanish, which had usually happened on other occasions. In this instance, they dissolved immediately

into air; of some even whole pieces remained for a length of time, which also by degrees were lost to the eye. At about eight o'clock there did not remain a vestige of any of them, and I have never since experienced any appearance of the same kind."

This is a very instructive case, and much concerning these remarkable phenomena may be learned from it. It is significant that these apparitions appeared first while M. Nicolai was suffering from serious disturbance of his mind and nerves, and continued until he was bled, and then vanished. This fact indicates that they were produced by determination of blood to the brain or by some disordered action of the brain, which was relieved by bleeding. Those who believe in spiritualism might claim that these apparitions were actually the spirits of the departed, who hovered around him during his time of affliction. If these apparitions had been merely of those who were dead, such a claim might be more plausible; but both the dead and the living were represented and rather more of the living than of the dead. This case, therefore, affords no confirmation of the doctrine of the spiritualists regarding the apparition of the spirits of the dead. It might be used as a means of interpreting the cases wherein the spiritualists claim to have seen spirits.

REPRODUCING APPARITIONS AT WILL.

Sometimes it happens that these apparitions can be reproduced at will. Dr. Clarke, in his work on "Visions," gives a case of this kind, as told by a Mr. E., a distinguished scientist, to whom it occurred while in college. Mr. E., during his junior year in college, had been studying too hard, doing extra work. He says: "In the first term of the senior year, I began to suffer the penalties for this overwork. Sleeplessness at night, impulses by day to eccentric freaks, and the singing of nonsense and profanity in my ears, were the most troublesome symptoms; these, however, disappeared after entire rest from mental labor for a few weeks in October and November, 1842; while the less

troublesome symptoms of visions, which began about that time, continued, I think, about two years. They were usually beautiful and pleasant, so that I was tempted to imitate Goethe, and try whether I could produce them at will. I was particularly fond of statuary, and after a few trials succeeded in producing visions of statues by simply fixing my imagination strongly enough upon the memory of what I had seen or upon what occurred to me as a good subject for a group. I repeated the experiment but a few times, fearing it might lead to some injurious result. The spontaneous visions could generally be ascribed to some unusual fatigue or excitement. Their form I could also usually account for from recent visits to paintings, statuary, or gardens; but sometimes their forms seemed to have been suggested by something long past."

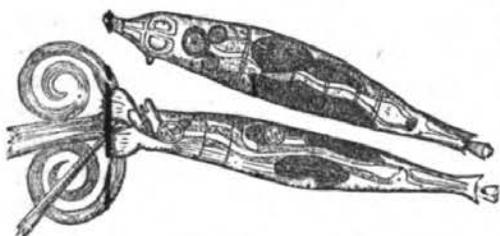
METHOD OF PRODUCTION.

In each of these cases, where apparitions were actually present, there were evidences of disordered action of the brain, which in some way is evidently connected with their production. Now, in explaining the method of the production of these apparitions and visions, it is important to bear in mind that we do not see with our eyes, as is commonly supposed. The eyes are the means of conducting the waves of light to the optic nerve, which conveys the impression made upon it to the brain, and that is the way we see. The impression upon the brain and its recognition is really the act of seeing. Now, when the action of the brain is disordered, what might be called a counterfeit impression of sight arises, is recognized by the brain, and reflected back to the eye and projected in space as a real object. Former impressions upon the sense of sight may be recalled and be projected, and thus a limitless number of familiar faces of the then living and dead may seem to be seen about the person; and if the disordered action affect the portions of the brain concerned in hearing, the subject will hear the apparitions talk as well as see them.

H. REYNOLDS, M.D.

MINUTE LIFE IN THE WATER.

THE examination of water which has been standing for a time exposed to the action of the sun and air, or to other favorable conditions, discloses the fact



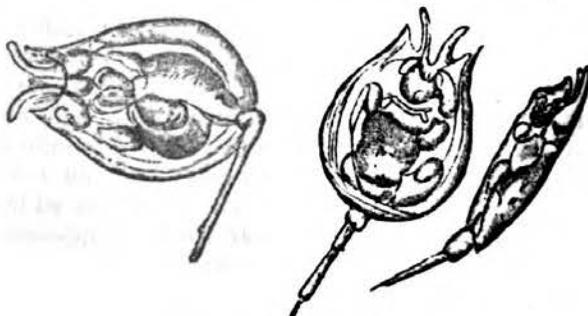
ROTIFER VULGARIS.

that it teems with organisms of a very minute size. Water possesses remarkable capabilities of absorption which constitute it at once an agent for cleansing and also an agent for the multiplication of poisonous germs. Used properly, water becomes a most important element in our every-day life, at once purifying, medicinal, health-giving; but used without judgment, carelessly, ignorantly, it becomes powerful as an instrument of disease and destruction. Without water the processes of organic function could not be carried on; it is the grand menstruum for the conveyance of the materials of nutrition in man and animals; the blood is more than three-quarters water. These facts show the necessity for our taking into the system water which is pure.

It may be said that the larger proportion of diseases afflicting mankind owe their origin to the use of impure water. Where population is condensed, as in cities, and the water supply is procured from a source miles away, and open reservoirs form the method of immediate distribution, the water is necessarily impure to a greater or less degree. In a city like New York, for instance, very few of its million people, perhaps not one in a thousand, is careful enough in his drinking to have the water filtered, so that what is taken

into the stomach shall be comparatively clean. Very few indeed bestow a thought upon the fact that impure water is infested with microscopic creatures, and the majority of those who do think of the subject, appear to entertain the view that all water contains minute life, and that as each "must swallow a peck of dirt before he dies," a little animal matter in the water will not add much to the peck, and can not be productive of injury.

Pure water differs very much from impure; it is not inhabited by organisms; it is stagnant water, or that which while running receives filth and refuse from drains which contain all sorts of impurity. The minute animals we find in stagnant water have an office to perform there: they are scavengers, hastening the destruction of the decaying animal and vegetable matter which may get into it, but they have little influence over the inorganic substances which exist in a state of solution or suspension. Macdonald states that mineral particles may affect health on account of their mechanical action; for example, mineral silt or clay causes diarrhoea, while dead animal and vegetable matter may have important effects producing irritation of the whole alimentary tract. On the other hand, living things, such as the ova of entozoa, the nematoid or thread worms and small leeches may



MONOSTY QUADRIDENTATA.

give rise at once to certain grave disorders. Vegetable life of the algæ order may act on sulphates and disengage sulphurated hydrogen. Water that is obtain-

ed from deep wells may appear limpid and pure, and yet contain mineral matter in solution. In fact, all well-water contains some salt, lime, or soda, or potash, or sili-



CANDONA REPTANS.

ca, or other common earth substances; the solution being dependent upon the nature of the soil in which the well is excavated; but a small amount of such matter is not to be regarded as injurious. Strictly speaking, the only pure water is that obtained by scientific distillation; but an excess of mineral salt, which is readily discovered by simple test, is likely to produce disease if its use is long continued. Minerals, silt, and clay held in suspension can be removed by filtering; but a clear solution of salt requires other treatment than that of the simple process of filtration for its elimination. The most dangerous of impure water, however, is that in which organic matter exists in appreciable quantity, and its persistent use is productive of a variety of febrile disorders. Without doubt a large proportion of typhoidal disease in our cities, and in some villages where cess-pools are in common use, is due to water poison.

The microscope discloses a wonderful variety of organic life in foul water, and some of the animacules which infest it in great numbers are shown in the accompanying illustrations. The *Rotifer vulgaris* is present in the water drank from our city pipes; it is a very common animalcule; the two specimens shown represent the male and female. The *Monos-*

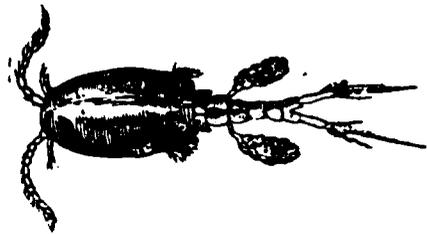


STYLONCHIA PUSTULATA.

ty Quadridentata is a crab-like animal, not altogether a pleasant object when viewed through a microscope. Of course these objects are so minute as to require

a very high power to bring them up to the sizes shown. *Cyclops quadricornis*, or four-horned cyclops, is by no means rare; while the pig or rabbit-like *Candona Reptans* often meets the eye of the examiner. These animals, like most forms of animalculæ, have the power of rapid multiplication; the number of their progeny in some cases is almost infinite; each apparently exists only for the multiplication of its species, and when examined under a powerful glass with proper facilities for maintaining their life, they seem to multiply. A specimen known as *Stylonchia Pustulata* is one of the most notable for its fertility, the ova being seen floating within its body.

A view of such beings as these should impress us with the necessity of care



CYCLOPS QUADRICORNIS.

with regard to the water which we drink, and that we should not leave the matter to chance or the ordinary ways of society. If we would experience all the purifying, refreshing, strengthening effects of water, we must see to it that the liquid is clean. There are many methods for its purification. Apparatus for filtering can now easily be obtained. If we are accustomed to draw our supply from the convenient house-pipe, we can at least attach to the faucet a filter which will serve a good end. But it is far better to employ a standing filter large enough to supply the family with drinking-water. This can be filled every morning, and be doing its work naturally and well throughout the day.

A word or two in regard to cistern-water is in place here. Rain-water is one of the best forms of water for our use; but when collected from a roof the first shower or the first part of a fall contains

impurities which have accumulated upon the roof during dry weather, and these impurities will infect the water in a short time. The leader or pipe from a roof should be arranged with a valve, or cut-off, so that the first part of the rainfall can be excluded from the cistern, and that only be permitted to flow in which comes down after the roof has been washed off. The majority of cisterns are faulty in some particular, being leaky at the top or bottom, so that surface or drainage water finds a way in and affects the quality. Oftentimes filth in considerable quantity accumulates on the bottom of a cistern because the cistern is not cleaned for a long time. Some builders are careless with regard to the drainage connections of sinks, and water-closets, and allow them to be laid too

close to the cistern, or connect overflow pipes with the cess-pool drainage so that the gases from that are absorbed in a large degree by the clean, fresh water of the cistern. Hundreds of cases of ill-health in village homes are due to fecal matter which finds its way in solution into the cistern which supplies drinking-water. It should be emphasized that just as much care should be taken in securing a good water supply for family purposes, as in the selection of food and clothing. As a people we are too much inclined to neglect essentials; while caring for the exterior of the body we forget the more important furnishing of the interior with those elements which shall conduce to good blood and to building up the body in health and strength.

M—E.

A MOTHER TO OTHER MOTHERS.

RUTH ELIOT was a wide-awake girl, thirteen years old, attending a public school in a large city. Her mind was open to all the new impressions which, at that age, nature and circumstances are so ready to give. One morning, just before the school exercises began, a teacher was passing a group of the girls, foremost among whom was Ruth, when she overheard some words of their conversation; they made such an impression upon her that she immediately wrote a letter to Ruth's mother—a warm personal friend of hers—in which she spoke of the suspicion which the few overheard words had brought to her mind, and begged that Ruth might learn of the things pertaining to her woman-nature through a mother's tender guidance rather than through the ignorant curiosity of school-girl talk.

Now, Mrs. Eliot had been brought up in the old school where parents were very reticent to talk with their children on any subject pertaining to the hidden things. She instinctively shrank from doing anything of the kind; indeed, whenever she had thought of the mat-

ter as a duty, she had allowed her daughter's youth to hinder her from any direct action with regard to it. But now, upon receiving this note, her naturally deep nature was thoroughly aroused. She realized, as never before, that only from her ought her daughter to learn of the new truths which she was now ready to know. She determined then and there to conquer all her own natural diffidence, and make her duty in the matter a delightful privilege. So, imbued with the determination to talk with Ruth that very night on her return home from school, she went to her room, where she sat and thought for some minutes as to her course of action. Then she began to take out from their hiding-place the dainty little things which she had been secretly making for several months past, and arranged them tastefully on the bed at her side. She had scarcely finished doing this when Ruth came bounding into the room, school-girl like, "to find mother." Immediately her bright eyes saw the lovely little things spread out before her, and her girlish enthusiasm was unbounded; for she had always

loved to make and play with dolls' clothes, and were not these just the same, only larger? Mrs. Eliot quietly watched her young daughter in her enthusiastic admiration; and before the questions springing up in the girl's mind had had time to find utterance, she gently drew her to a cricket by her side. Then in a hushed and reverent manner she told her of the little life that she was carrying under her heart; how it was being prepared to come to them in the fulness of time; how happy she had been in making such pretty things to welcome the little stranger, and how blessed it was to have a home all ready in which to receive joyfully and love tenderly the dear little creature when it should come into the world which, at its best, must offer some kind of trouble and sorrow.

Then, as the twilight deepened, she told her many things that she wanted and needed to know, and crowned the new knowledge with the promise that she would come to her with every new question which her mind prompted, rather than stoop to learn anything through the ignorant curiosity of school-girl talk.

The supper-bell closed their interesting conversation, and the mother and daughter, happy in their new and larger relations, joined the family at the tea-table.

As Mrs. Eliot met her son Paul, a boy two years older than Ruth, the experiences of the day flashed upon her anew, and, in a moment's time, she resolved to talk as freely with him as she had talked with Ruth. So, before he retired for the night, she called him to her room; and in the earnest conversation that followed, with its lovingly-drawn-out confidences, she was surprised, as well as deeply grieved, to learn that, even then, he had learned much from a wrong stand-point. She then appealed to the highest in him, and urged him ever to avoid all that was coarse and sensual; while, at the same time, she gently revealed to him the true nature of all the glorious privileges which, as true men and women, nature intended should be theirs to en-

joy. She showed the necessity of shunning all that idle talk with his boy friends which would lower his mind and taint his heart, and so prevent him from keeping himself noble and pure.

Thus in her talk with her boy, Mrs. Eliot used such a loving, wise tact, that he promised faithfully to give to her his whole confidence in the days to come, and to go to her rather than to his school-mates to learn of the things pertaining to a larger knowledge of himself. Each was cognizant of the new relation which had sprung up between them; and they both knew that life would be more to them for it.

Long after Ruth and Paul had bade their mother "Good-night," she was sitting in her room and thinking over the new experiences of the day and their relation to her future action. Her heart was full of that peculiar happiness which comes as a reward for love's work fulfilled. Ere she retired, she wrote out of a full heart a letter to the teacher friend who had warned her in the morning, and begged her to write to other mothers as she had written to her. She also urged her to try herself to satisfy the natural desire to learn of those unfortunate ones who had no mother either in name or sympathy; for since she felt, as she had never felt before, that a desire to know, or, in other words, a natural curiosity was the first cause of either the good or evil that followed, she saw more truly the necessity of an early and true guidance into the knowledge of those holy things which, rightly learned, opened the way to life's greatest happiness.

ELIZABETH PORTER GOULD.

My friend, your golden age is gone,
But good men still can bring it back again;
Rather, if I must speak the truth, I'll say
The golden age of which the poet sings
In flattering phrase, this age at no time was
On earth one whit more than it is to-day;
And if it ever was, 'twas only so,
As all good men can bring it back to-morrow.

GOETHE.

LAMENTATION OF THE LUNGS.

ALAS! has winter come again? Oh, how we dread the day!
 The sufferings we undergo the bravest might dismay.
 It is not that we fear the cold: had we a good supply
 Of proper nourishment, the blasts of Greenland we'd defy;
 But these poor bodies where we dwell have so impatient grown
 That, heedless of the common good, they've learned to slight their own.
 Not thinking that with fuel we our office would perform
 And take in oxygen to keep the blood and all the body warm.
 So *down* the window sashes go and *up* the stoves, until
 We starving lungs must labor hard our duty to fulfill.
 Six people sit within a room of twelve by fifteen square,
 With windows closed, and *talk* about the benefit of air.
 While fires, gas, and dozen lungs are fighting to secure
 Their rights, what grave offense he'd give who called the air impure.
 The business, chance, or pleasure takes one member to the street.
 See how he wraps his body round, protects from head to feet.
 Without a thought of how we like the change he hastes to go—
 One breath at eighty and the next the freezing polar below.
 Those of us who are hardy, soon will set the matter right;
 But some poor weakly pairs of lungs will reach a sorry plight.
 Perhaps our tabernacle moves to pitch its roving tent
 Within some crowded hall or church—no doubt with good intent;
 But little good the sweetest songs or best of sermons do

To those who vainly strive to keep awake within their pew.
 For in that place of peace a deadly conflict we must wage,
 And friends sit calmly while their lungs in fiercest war engage.
 We struggle for a little air, while clamoring for more
 The surging flood each moment rolls like waves upon the shore.
 Clogged by impurities, in vain to us for help it cries,
 And then the brain and nerves grow dull and dim the drooping eyes.
 But should a sufferer chance to rise and from the topmost raft
 Let in a little air, forthwith somebody *feels* a draught.
 And so we're forced to get along the very best we can;
 Nor do the good that we might do for blundering, headstrong man.
 We hear enough of pills and colds and pills and powders too.
 Oh, if the suffering ones, nineteen of twenty only knew
 (And if the ones who know would put in practice what they say)
 How soon they'd let in heaven's air and throw their drugs away.
 But while they pet their tender skins and nurse their every ill,
 And starve their suffering lungs, their crowded stomachs fill,
 The impure flood will run its course within the choking veins
 And foul catarrhs and colds will bring their legion list of pains.
 More truth than many dream is in that fashionable word
Mal-urbo, by few its full significance inferred.
 Then heed your lungs, your starving lungs, *nor* let them vainly plead,
 Because they have no *patate* to assist them in their need.

M. E. B.

A SERIES OF DON'TS.

IN the beginning of the year it is well to form good resolutions, with one at the head of the list which proclaims an obstinate intent to carry them into execution. Resolutions with respect to better habits for health's sake are as good as any we can make; and having lately met with a series of that sort adapted to this season and all seasons, and all short, clear, and to the point, we put them here. Sinner against light and reason, read much, learn and practice, and be a stronger, better, happier person!

Don't be afraid to put on clothing

enough for comfort. Don't go to bed with cold feet. Don't sleep in the same undergarments that you have worn during the day. Don't sleep in a room that is not well ventilated. Don't sit or sleep in a draught. Don't lie on the left side too much. Don't try to get along with less than seven or eight hours' sleep out of the twenty-four. Don't jump out of bed immediately on awakening in the morning. Don't forget to rub yourself well all over with crash towel or hands before dressing. Don't forget to take a good drink of pure water, before breakfast. Don't take long walks when the stomach is empty. Don't attempt to do a day's work without eating a good breakfast. Don't eat anything but nutritious and well-cooked food. Don't eat what you don't want, just to save it. Don't eat

between meals. Don't eat the smallest morsel unless hungry, if well. Don't try to keep up on coffee or alcoholic stimulants when you should sleep or rest. Don't stand over hot-air registers. Don't inhale hot-air or fumes of any acids. Don't wear thin stockings or light-soled shoes in cold or wet weather. Don't strain your eyes by reading on an empty stomach, or when ill. Don't strain your eyes by reading or sewing at dusk by a dim light or flickering candle or when very tired. Don't sing or halloo when your throat is sore or you are hoarse. Don't drink iced water when you are very warm. Don't take some other person's medicine because you think yourself similarly afflicted. Don't bathe in less than two hours after eating. Don't eat in less than two hours after bathing.

NOTES IN SCIENCE AND AGRICULTURE.

Human and Canine Blood.—A correspondent of the *Microscope* reviews some of the authorities on the size of the corpuscles in human blood, and shows the egotism of a certain "expert" in assuming positive knowledge of their difference from those in dog's blood.

In a recent case on trial at Wellsboro, Pa., Dr. Thad. S. Up de Graff, of Elmira, N. Y., swore very positively on this point. The newspapers give Dr. Up de Graff the credit of convicting the prisoner. It is not the proper place here to determine whether the prisoner was guilty or not; it is in the precincts of this journal, however, to determine whether the expert testimony was according to facts. Dr. Up de Graff was given some of the stained clothing to examine, and by processes entirely unknown to the writer (according to all accounts seen), by decantations, washings, etc., some corpuscles were procured and measured. Dr. Up de Graff positively testified that this was human blood and not dog's blood. When asked if he was the only one who could tell this, he replied that "there were but four men in the world who could tell human blood from dog's blood"; and of course he was one of them. When asked why he could do so much better than others, the reply was, "On account of the superior character of his glasses, and that his microscope cost \$1 600." The testimony of Dr. Up de Graff makes him give a positive size to the human red-blood corpuscle. What do standard writers say on this subject?

Gulliver says they are the $\frac{1}{2000}$ of an inch.

Flint says they are the $\frac{1}{2500}$ of an inch.

Dalton says they are the $\frac{1}{2500}$ to $\frac{1}{2000}$ of an inch.

Richardson says they are the $\frac{1}{2500}$ of an inch.

Woodward says they are the $\frac{1}{2000}$ of an inch.

Frey says they are the $\frac{1}{2500}$ to $\frac{1}{2000}$ of an inch.

Welcker says they are the $\frac{1}{2500}$ of an inch.

Where is the exact size to judge by? The red corpuscles are also subject to change in size by the varying changes in the blood and by many drugs. Wagner, in his "General Pathology," gives a long list of remedies that when administered change the size of the corpuscle. How delicate is it, also, to the various reagents used in microscopical work! I have seen red corpuscles as small as the $\frac{1}{2500}$ of an inch, and as large as the $\frac{1}{2000}$ of an inch. I have never measured red-blood corpuscles in lots of fifty each and had any two exactly alike, although using a delicate cobweb eye-piece micrometer and a one-fiftieth objective.

Listen to what Mr. Woodward, of Washington, says: "The average of all the measurements of human blood I have made is rather larger than the average of all the measurements of dog's blood. But it is also proved that it is not rare to find specimens of dog's blood in which the corpuscles range so large that their average size is larger than that of many samples of human blood."

A Test for Gluten.—Lester Reed writes as follows in the *Chemical News*: "Having some time ago had occasion to seek a rapid approximate method of estimating the quantity of gluten in flour, I found the following to give fairly correct results with known mixtures of white flour and starch

(arrowroot being the form of starch employed in the experiments):

"The principle upon which the estimation is based is the production of a yellow nitro body when nitric acid acts upon albuminoids. 0.5 of a gram of flour is weighed out and carefully transferred to a test-tube which is divided (beginning at the bottom and ending the graduation about half way up) into four parts of equal capacity; water is now added up to the fourth mark exactly, and the test-tube violently shaken, being closed by the cushion of the thumb. Frothing is best avoided if the shaking be terminated by successive inversions of the tube; the contents are temporarily transferred to another dry test-tube while the marked one is cleaned (all the pourings out are to be done immediately after shaking). A quarter of the liquid is now poured back, viz.: up to mark 1, and the tubes filled up to mark 3 with nitric acid of strength such that half a test-tube full of it appears white, when a white surface is observed vertically through it, but the acid should, barring this condition, be as strong as possible. The test-tube is now to stand exactly five minutes, with occasional shaking up, and is then to be filtered immediately after shaking through a dry receptacle; a standard flour is to be treated in the same way, and the two clear yellow solutions examined colorimetrically; the qualities of flours are then inversely as the heights of equal color."

A Man of Purpose and Gumption.—He is said to live at Tuftonboro, and the *Boston Journal* tells us that he has a wheelbarrow, but there is not anything peculiar about it, only he has cut seven tons of hay and put it in the barn on that wheelbarrow the past summer, and has done his other harvesting in the same way. From less than one-half acre of ground that man cut and shocked 122 shocks of corn, 16 hills in a shock. When husked, the corn filled a bushel basket 73 times, besides 500 ears traced up, the ears in the trace measuring from 9 to 16 inches. On this same half acre he raised more than 2 bushels of beans, 2 bushels of turnips, 2½ heads of cabbage, and about a cart-load of pumpkins. From one potato, which he made a specialty, he raised 2 bushels of assorted potatoes, and between 2 and 3 quarts of small ones. From 1½ bushels of seed he raised 65 bushels of assorted potatoes, from which may be selected 1,000 smooth and handsome tubers that will weigh more than 1,000 pounds. From less than 9 square rods of ground he harvested 91 bushels of Dewin's early turnip beets that weighed from one-half to 5 pounds apiece, which for beauty and quality can not be surpassed by any lot of beets raised by one man in the county of Carroll.

Signs of Wood.—There are certain appearances characteristic of good wood, to what class soever it belongs. In the same species of wood that specimen will in general be the strongest and most durable which has grown the slowest, as shown by the narrow-

ness of the annular rings. The cellular tissue, as seen in the medullary rays (when visible), should be hard and compact. The vascular or fibrous tissue should adhere firmly together, and should show no wooliness at a freshly cut surface; nor should it clog the teeth of the saw with loose fibres. If the wood is colored, darkness of color is in general a sign of strength and durability. The freshly cut surface of the wood should be firm and shining, and should have somewhat of a translucent appearance. In wood of a given species the heavy specimens are in general the stronger and the more lasting. Among the resinous woods, those having the least resin in their pores, and among non-resinous woods those which have least sap or gum in them, are in general the strongest and most lasting. Timber should be free from such blemishes as "clefts," or cracks radiating from the centre; "cup shakes," or cracks which partially separate one layer from another; "upsets," where the fibres have been crippled by compression; "wind galls," or wounds in a layer of wood, which have been covered and concealed by the growth of subsequent layers over them; and hollow or spongy places in the centre or elsewhere, indicating the commencement of decay.

A Curious Indian Practice with HUMAN HEADS.—Among the most curious objects in some museums (that of the Smithsonian Institution at Washington included) may be mentioned a peculiar form of human head, as diminutive in size as that of a monkey, but the general features well preserved, the hair long and dense, and the lips usually sewed together with a large number of cords, which hang down from them. Tufts of feathers and other objects are frequently used for the embellishment of the preparation. On examination it will be found that this head is composed exclusively of the skin, all the bones and flesh having been removed; but the precise mode of preparing this has for a long time been a puzzle to every one.

Quite recently Mr. Buckley, an English traveller in the Andes, has brought back to England several specimens of these objects, and explains the mode of preparation. According to his statement, the head is removed from the body, and, after being boiled for some time with an infusion of herbs, the bones, brain, etc., are taken out through the neck. Hot stones are then put into the hollow, and as they cool they are continually replaced by others. The head is by this process contracted, and the skin reduced to the size desired. A string is then run through the head, which is suspended in the hut, and solemnly abused by the owner, who is answered by the priest, speaking for the head, after which the mouth is sewed up to prevent any chance of a reply. This abuse is repeated on feasts and on any special occasion. The heads are essentially trophies of victory, corresponding to the scalps of the North American Indians, being usually those of enemies killed in open or secret warfare. The tribe among which

this mode of preparation of heads is practiced is that of the Macas, as well as sundry sub-tribes occupying the country immediately on the eastern side of the Andes, a few degrees south of the equator. The head in the National Museum is from one of the sub-tribes, called the Jibaros.

The Adaptability of the Cotton PLANT.—"Since I have studied the character of all the great Southern agricultural staples, and the special relations of each of them to the life and civilization of the people," says an economist, "the prominence always given to cotton does not seem strange or unaccountable. It is a wonderful and peculiar plant in its adaptation to the varieties of soil and general environment which it finds in different parts of the country in which it is grown, and also in its relation to some features in the character of the people who are engaged in its culture. It will grow on almost any soil and in almost any possible situation, in the latitude in which it belongs. Where the soil is generous the quantity of the fibre which is produced shows that the plant has very great power of assimilation and appropriation for whatever elements of nutrition are contained in its food supply. On the other hand, if the soil is excessively poor and sterile, cotton will still grow. It now wastes no strength or food on stem or leaf, but puts all its material and force into flower and seed. It is the fact that cotton is a seed fibre that makes it so valuable to this country. If it were the fibre of the stem or bark, as is the case with flax or hemp, much of the land of the cotton region, and much of the cultivation employed upon it, would be entirely inadequate to the production of the fibre in paying quantities. But nature cares more for seed, of course, than for anything else, and in making the seed of the cotton plant she makes the fibre which is of so great value; and in soil almost utterly barren, and with scarcely any cultivation, there will still be matured, on each dwarfed and stunted plant, a few bolls of fairly good, marketable cotton."

Meteoric or Cosmic Dust.--The peculiar redness of the sky after sunset and before sunrise which was observed so much in November and December, both in America and Europe, is explained by some by the hypothesis of the existence of a zone of meteoric dust within the limits of our system, and that periodically the earth passes through a part of it. It is interesting to note what some observers have to say on this subject of meteoric dust. Mr. C. Ranyard, in a communication to the British Astronomical Society, says that meteoric dust exists to a much greater extent than was formerly suspected.

In 1867 Dr. Phipson published the result of many experiments in many countries, which showed that, by exposing a sheet of glass covered with pure glycerine to a strong wind, he has collected on it black angular particles, which he has by chemical tests found to be iron. It is, however, only in the winter

months he has found this to be the case. In 1871 Dr. Nordenskjöld collected, by a magnet, meteoric iron particles from snow which had fallen near Stockholm. In 1872 he collected much of it from snow lying on ice in Finland. The Arctic Expedition of 1872 had opportunities of collecting snow far removed from human habitations, and they found large proportions of magnetic particles. M. Tissandier, in 1874-5-6, published in the *Comptes Rendus* a series of papers on atmospheric dust, in which, among other things, he has alluded to the iron found in the dust collected on the towers of Notre Dame. Again, Dr. Walter Flight published in the *Geological Magazine*, in 1875, a paper in which he collected the evidences of iron "dust" found in holes in the ice in Greenland. In 1876 Mr. John Murray published a paper in the "Proceedings of the Royal Society of Edinburgh," in which he gave an account of his examination of the bottom of the oceans and seas visited by Her Majesty's ship *Challenger*. In many of the deposits magnetic particles were found. It was suggested that the nickel present prevented oxidation, while the fact that the meteoric particles which had fallen into the sea had not been washed away, was attributed to the water being deep and not near the scourings of land surfaces which would cover it up. Again, in 1876, M. Young examined the iron particles found in the snow which had fallen at the Hospice of St. Bernard. Mr. Ranyard submits that all these facts go to show that meteoric matter falling in the lapse of ages must materially contribute to the matter of the earth's crust. In the course of a year millions of meteors enter the earth's atmosphere. The researches of Von Niessl show that many of the meteoric masses enter the earth's atmosphere in directions indicating that they do not belong to our solar system. It is therefore probable that a large quantity of meteoric dust is derived from sources outside our system. The earth and the planets, as they are carried along with the sun in its motion through space, would thus receive a larger proportion of meteoric matter on their northern than on their southern hemispheres, and Mr. Ranyard suggests that this may account for the preponderating mass of the continents in the northern hemisphere of the earth and for the fact that the great peninsulas all taper to the south. Another important inference to which Mr. Ranyard directs attention is that it is known that when meteoric masses are heated large amounts of occluded gas are given off. One of the results from a continuous fall of meteoric matter is that gaseous matter is probably being continually added to the atmosphere. According to whether the earth were passing through a region of space in which there are many or few meteors, the height of the atmosphere would be increased or decreased. When decreased, the temperature at the sea level would be that of our mountain tops and a glacial period would result. When increased, the temperature would probably be like that of the carboniferous period.



CHARLOTTE FOWLER WELLS, *Proprietor.*
H. S. DRAYTON, A.M., M.D., *Editor.*
NELSON TAZER, *Associate Editor.*

NEW YORK,
FEBRUARY, 1884.

FUNDAMENTALS IN POLITICAL ECONOMY.—1.

IN the complex relations of modern life a knowledge of the fundamental principles of political economy is essential if one would understand the meaning and purpose of those relations clearly, even in part. The measures of government, the relations of demand and supply in trade, and of capital and labor in industrial vocations, the development of art, the progress of scientific discovery, the character of civil and social reforms, the work of philanthropy, the dissemination of intelligence through systems of education, all come within the scope of political economy.

I agree with Mrs. Marcett, who, in her "Conversations on Political Economy," alludes to the errors and inconsistencies constantly occurring in the talk of society with reference to legislation, trade, and the practices of people on account of the prevailing ignorance concerning the elementary principles of political economy. To use her own language, "There is scarcely any history, or any account of voyages or travels, that does not abound with habits and opinions, the bearings of

which can not be understood without some previous acquaintance with the principles of political economy; besides, should the author himself be deficient in this knowledge, you will be continually liable to adopt his errors from inability to detect them."

In the very outset of an examination of the subject, a student may find himself puzzled to obtain a categorical definition of the term. With the confidence usual to the learner, he may turn to the dictionary and the encyclopædia for light; but with those convenient manuals of definition and brief discussion at his command, he finds that the matter of his inquiry is not of easy solution. The "doctors" differ much in their views of its particular application. Webster, to be sure, summarizes it as "that branch of philosophy which discusses the source and methods of material wealth and prosperity in a nation"; while Sismondi, Archbishop Whately, Sir James Stewart, John Stuart Mill, Jean Baptiste Say, and Henry C. Cary propound definitions which very widely differ in significance and application. Sismondi, for instance, declares the "physical welfare of man, so far as it can be the work of government or society, as the object of political economy." The distinguished logician and divine concisely designates it by the term "Catalactics, or science of exchanges." The French publicist speaks of it as "the economy of society, a science combining results of our observations on the nature and functions of the different parts of the social body." The Scotch philosopher, Stewart, holds it to be an important object of political economy "to provide everything necessary for supplying the wants of society, and to employ the inhabitants

in such a manner, as naturally to create reciprocal relations and dependencies, so as to make their several interests lead them to supply one another with their reciprocal wants." John Stuart Mill says political economy is "essentially an abstract science, and it reasons, and must necessarily reason from assumptions, not from facts." Further, he claims to define it with completeness as "the science which treats of the production and distribution of wealth, so far as they depend upon the laws of human nature, or the science relating to the moral or psychological laws of the production and distribution of wealth."

The American essayist, Henry C. Cary, standing on higher ground, insists that this science has for its "great object" and "its chief claim to attention, the promotion of the happiness of nations." He, however, regards the subject as an art rather than a science; a process, in other words, by which man may ameliorate himself physically and morally.

Going back a little in time, we cite Francois Quesnay, that worthy thinker of the last century, to whom the origin of the term "Political Economy" is attributed. Society, he claims, is based upon certain natural rights, the chief of which are freedom of person, freedom of opinion, and freedom of contract. The scope of political economy, in his thinking, comprehends all ascertainable laws pertaining to man as a social being.

A simple definition of political economy would naturally classify it under the two social heads, expressed by the term itself, *politics, economy*. *Politics*, in the abstract sense, means the representative sentiment of a community, as embodied in a system of government for the preservation of individual life, right, and prop-

erty, the maintenance of peace and order, and the promotion of general prosperity.

Economy has an internal special application, being derived from a Greek word which has reference to household or domestic affairs; their management in a careful, prudent manner, so as to secure the best results with the least loss or expenditure of time and material being implied. Some authors discuss political economy mainly from this point of view, deeming its application to society at large but an extended or elaborated form of household or family economy; but the majority of authorities have limited this mode of discussing the subject to a department of finance, and claim that the word *political* in connection with *economy*, when applied to a community, gives it a very different significance from that possessed by *economy* in relation to a household; that it has reference to or means the science of those laws which Providence has established for the regulation of communities. As the State is made up of individuals, therefore that system of living which promotes the material welfare of the individual, should furnish the first or proximate principles upon which may be founded a broad system adapted to the welfare and permanence of the State. The matter is considered one of practical philosophy and involving necessarily no moral or religious factors. Treated with scientific directness, ethical questions have no logical connection with it. Mr. Spencer, Dr. Wayland, Mr. Walker, and M. Bastiat are among those who discuss the topic apart from its ethical relations, like Adam Smith, defining it briefly as "the science of wealth," but unlike him they indicate little or no appreciation of the moral issues its broad consideration involves.

The long list of authors who have bent their intellectual energies to the task of solving the problem of the true causes of national development and prosperity, appear to regard increase in material resources as an indispensable adjunct to human happiness, or perhaps more strictly as the chief coefficient of happiness. Finance, banking, the laws or practices of trade, agriculture and industrial protection are therefore their leading topics. A money balance in favor of the State, and against foreign peoples with whom trade is carried on, is deemed a most important factor of national prosperity, and an increase from year to year in property values looms up before them as a special indication of substantial progress in community wealth. Here, it is claimed, is a tangible expression of growth; here are the material data which respond to the scrutiny of cold logic, and gratify the officials who administer the finances of the nation. "Mr. John Stuart Mill," to use the words of Cary, "advises his readers that 'the greater part in value of the wealth now existing in England,' farm-houses, factories, a few ships and machines, being as he says the only exceptions, 'has been produced by human hands within the past twelve months,' thus excluding from consideration not only the moral and mental elements, but also nearly all the accumulations of ages. . . .

"Following closely in his footsteps, journalists—foreign and domestic—fondly speak of raisers of corn and cotton, miners of coal and smelters of ores, spinners and weavers, tailors, shoemakers, and the like, as being the sole wealth producers; thus wholly rejecting the claims to consideration of men like Watt and Stephenson, Morse and Henry, Liebig, Faraday, and thousands of others

to whom the world stands most indebted for the wonderful growth of wealth and power that marks the period in which we live."

Such a consideration of national economics evidently omits the ethical features of the gratitude due to these men, whose wonderful genius has added to the capability and power of man, in multiplying the results of labor and in providing for his physical needs.

Before the attempt is made to lay down formulas for the guidance of men in their daily life, we should have a clear conception of their mental and physical nature, and with scientific calmness accept what the human organism itself teaches with reference to the primary essentials of happiness, for that is the central aim of all human endeavor. It certainly should require no argument to show that whatever has a primary bearing upon the condition of man must, if positive improvement is to be attained by normal measures, be founded in the very nature of man; nevertheless there are writers who have propounded elaborate schemes based upon mere assumptions, and discussing theories and practices in government and commerce in a manner entirely disconnected from the personal organism of man. Are not these in the position of the father, who, desiring to please his son, brings him presents which have been selected without any regard to their adaptation to the boy's wants and leanings?

Two grand divisions compose the creature, man: Mind and Body; each is a compound exhibiting by analysis almost indefinite subdivision; and although widely, if not infinitely, differing in properties and functions, each is closely related to and dependent upon the other. The

paramount influence, however, belongs to the Mind, the subtle, invisible powers of which, through what are called perception, reason, sentiment, propensity, control the action of the bodily parts. Mind is related directly to body through an organ of peculiar and complex tissue, called the brain. How the relation is established physiologists have as yet been unable to discover; but it is well settled that the brain is the instrument or agent of the mental faculties, and indicates by the elaboration of its parts, their size, form, consistency, etc., the power and activity of the faculties. Mind in its essence or spirit lies back of substance and form, and impresses them with characteristics which are open to interpretation. The poet uttered no fantastic caprice when he wrote,

"For of the soul the body form doth take,"

but a grand living truth, which the philosopher had recognized for ages, and the speculation of the ancient Greek that the head mirrored the character and mental power of the man, has become the fact of the modern anatomist, who with scientific exactness declares that thought, feeling, sentiment, occupy different regions of the cerebro-nervous system.

(*To be continued.*)

WHAT ARE OUR BOYS AND GIRLS READING?

IS a question most pertinent in this season of long evenings, when the younger members of our household are accustomed to gather around the centre-table, each endeavoring in his or her fashion to make the time pass pleasantly. It is so easy now to find books that are attractive and useful too, that the parent who will not

take the time to select them has no excuse for complaining that his boys or girls bring books home which are utterly unfit for them. The great mass of parents give little heed to what their children read. This is a sad, nay, almost wicked fact, and accounts for many a startling development of misguided sentiment or passion in which mere children are the principals. The boy has been reading some cheap tales of adventure, and his mind becomes fired with an earnest resolve to break away from the restraints of home and the quiet order of his village life, and go out into the wild, intent upon rivaling the sanguinary exploits of the fierce heroes about whom he has read; or the girl whose imagination has been stirred by tales extremely diluted with sickly sentiment is drawn into a snare by a careless or vicious associate, and leaves her quiet home suddenly, expecting to find delight and joy in some indefinite place. The direct cause of such occurrences is frequently found to be the stuff which has fallen in their way, and for which they have acquired a most absorbing affection. Physicians tell us of a "Novel Disease" which is becoming prevalent, and is destructive both to the moral and the physical constitution. People who have grown up amid sensational literature get into listless, uneven habits; they find no pleasure in anything but poring over pages of trashy story books; nothing is too startling or garish for their taste. The more incredible the plots, the more remote the incidents may be from actual life, the better they like the work of the storyteller; and feeding upon such "rot" they become actually deranged in mind; they can not consider the real and the necessary from the point of view of clear-

ness and propriety. It is exceedingly unfortunate that there are so many bad books afloat and so available for our bright boys and girls; they get into libraries of every kind, even those of the Sunday-school, as well as of the home. There is not prudence or care enough exercised in their selection by those whose duty it is to look after such things. Teachers, parents, friends, we entreat you to consider this matter honestly, earnestly, and religiously. Talk about it with your young friends; admonish them with reference to the books they are reading; give them good suggestions, and encourage them to peruse that which is adapted to their young minds and will give them a solid basis of growth.

TRUE TEACHERS.

THE very animated discussion now going on in educational circles with regard to improved methods of instructing the young has brought very distinctly into view the fact that organization has an important bearing upon individual adaptation. The advocates of what is called the new education would have children trained on their practical side, so as to make them familiar with the matters belonging to every-day life. They would help them to use their eyes and ears and hands and feet in orderly and definite ways; and they indicate a tendency of belief that the man's best success is dependent upon the boy's preparation for that sphere to which he shows a readiness of application. But they are somewhat handicapped in their excellent work through want of light as regards how a boy or girl shall be put in the way of knowing the kind of life for which he or she is best fitted by nature. They know,

as all others who give any attention to the subject know, that it usually takes forty or fifty years for a man or woman to discover the special talent that ought to be known in the beginning. We claim that all the aids of science and art should be used for this important purpose; that mistake in the vocation chosen by a young man or young woman is often fatal, so far as success is concerned. If there be a way by which a youth's special capabilities can be ascertained, that should be employed.

People talk about the blindness of parents in not giving heed to the capabilities of their children when considering the subject of a future career; and yet the great majority keep in the dark, and as a consequence, the world is pretty well made up of second or third rate doctors, ministers, lawyers, artists, writers for the press, carpenters, masons, tailors, etc. Who is to blame for this condition of things, if not the natural guardians of the young? If there be a method with a scientific basis assumed or real, is it not the duty of those who have children under their control to appeal to it and obtain what help it can afford? There are hundreds of people in the community who were once regarded as hopeless invalids, given up by the doctors, but who came in contact with some "quack," some man berated and ridiculed, despised by respectable regularity, but who proved nevertheless most efficient in giving the sick ones that advice which turned them in the direction of health and recuperation. There is many a so-called "quack" in science whose special learning and practical information would put to the blush the most eminent professors. We may differ from most of our contemporaries in our views of quackery, for when

we find a man who possesses solid information and extensive experience in direct connection with his vocation, and we see that he doesn't yield an obsequious respect to the conventional methods of society, and doesn't belong to some close and select organization which assumes to exercise a paramount control over men of his profession, we are not inclined to cry "Quack," but are prompt to accord him the respect due to substantial merit.

In mental philosophy that man may be esteemed a "quack" who presumes to make his knowledge of use to his fellows, because he has discovered that his studies are not merely high up in the region of verbose speculation, but have a practical bearing upon the life and character of people. But if in experience it is known that he does material good to those who accept his counsel, should not the world go to him for advice and help? It is disbelief, however, which is most prone to account noble and beneficial arts and theories "quackery." The old-school men in the educational contest are ready to style the new-school men as impostors and "quacks," but the latter have got the right idea in their heads and are intelligent enough to perceive its truth and dawning possibilities of benefit to millions of youth. One step more and they will be firmly planted on the vantage ground of special adaptation and then education will be what it should be.

THE INSTITUTE COURSE OF '83.

THE annual session of the "American Institute of Phrenology" was held as usual, beginning the first Tuesday of October. The students in attendance were in some respects exceptionally endowed, and the lectures were more extended than usual, embracing, in addition

to the ordinary technical subjects, a course of public, popular lectures, which was given at the Cooper Institute. This last feature was exceedingly interesting to the members of the class who expect to teach Phrenology in public, as it gave them an idea of the difference between the sharp, critical method pursued before a class, and the popular treatment of the subject before a public audience.

The members of the class, beside the possession of clear and calm intellectual vigor, manifested an intense earnestness and sincerity in the prosecution of the subjects of study, devoting their time and energy, between the lectures, to practical inquiries by means of measurement and inspection of the busts and skulls which were used for illustration, and also the measurement and examination of living heads.

Two members of the class were young Presbyterian clergymen; one was a lawyer, and there were several teachers. The world needs the labor and influence of such persons as constituted the class of '83; and we have no doubt the instructions received will be, in the minds of those that preach the Gospel, like leaven, aiding them materially in readily comprehending human character as a subject of study and treatment. While some will enter the field as lecturers and practitioners, some may remain as they intended, in the departments of business to which they have heretofore been devoted. There is a growing opinion that merchants and mechanics, as well as teachers, lawyers, and ministers, need all that can be known in regard to human character as revealed by Phrenology; and that their power will be more than doubled for good by such knowledge.

It must be apparent to every thoughtful person, that as the mind of each person has original peculiarities, and its special susceptibility to culture and influence, no single rule of action can properly apply to all in the class-room, in the store, or in society; consequently he who would adapt himself to every kind of pupil, or customer, or auditor, in private

or public, should know how to read the peculiarities of each one, so as to adapt the language and manner to the disposition of the person addressed. Men who have the talent and the culture to understand human nature, will do three times

as much business among strangers, or anywhere wield an influence vastly greater than he who is deficient in this respect. Hence such knowledge is of the first importance to professional and business people. S.

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

IF AN INQUIRY FAIL TO RECEIVE ATTENTION within two months, the correspondent should repeat it: if not then published, the inquirer may conclude that an answer is withheld, for good reasons, by the editor.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal matters will be considered by the editor if this is done. Anonymous letters will not be considered.

GAPING.—D., ENGLAND.—Surprise, close attention, eager interest may cause a person to open the mouth. So too listlessness, indifference, the condition of being bored may produce gaping. Habit has much to do with this as with other attitudes of the features. By watchfulness you may break yourself of the tendency to gape.

MOTIVE TEMPERAMENT.—O. R. D.—The description of the Motive Temperament given in "How to Read Character" is brief, but in the main correct. Generally the Temperaments are found in combination so that their special characteristics are much modified by mixture. The Motive

Temperament is perhaps the most strongly marked in every-day life; that is, we find its characteristics more distinctly shown in people than are the characteristics of the others. This is true of our American life, because the stimulus of activity which pervades the atmosphere tends to make the bodily framework bold in outline. It is, of course, in the man whose vocation and habits are of the physical order that we find this temperament. The Mental Temperament is almost as well marked in those whose pursuit is of the interior, sedentary class.

SELECTING A WIFE.—C. B.—This subject is a very important one; so important indeed, that we can not treat it lightly, and can not advise upon so small a basis as your description of characteristics. The examiner should have the person himself or herself present when he offers advice on the subject of choosing a life companion.

LOWER JAW.—L. M. O.—The contour of the lower jaw is dependent upon temperament for the most part. Appearances differ too when the face is fleshy or wanting in abundance of tissue. A strong Motive Temperament has a strong muscular constitution, backed by a strong and large, bony framework. You will find that those who are powerfully constituted physically have large jaws, the angle of the lower maxillary is rounding and deep. One with a long, narrow chin, is usually light in bone, and thinly covered with adipose tissue, the temperament being of the mental type. The impressions upon the character, therefore, when the frame of the face is bold and powerful, arc of the Motive order, and of course when it is light, thin, sharp, are of the Mental character.

PORTRAIT OF A MURDERER.—C. B.—There are characteristics of expression in this portrait which are not specially agreeable, although the form indicates good intellectual endowment. We think the man was rather given to despondency, a feeling which may have grown upon him with years, and was due to causes outside. The portrait of his wife shows a sharp, angular, fitful nature, something of the scold or vixen; one of those women who would worry the life out of a patient, kindly nature. The man possesses qualities of refinement, and with that a great deal of sensitiveness

and intolerance of the rude and irregular; he would be most likely to show much restlessness and irritation under forced restraint. In congenial relations, however, he would show himself an agreeable man. The children's likenesses are fatherly more than motherly. In expression, taken altogether, the face of this alleged murderer bears the marks of a character that has been wrought upon by unhappy circumstances, so that it possesses morbid elements with a tendency to fitful malignity. Such a case is exceedingly interesting for the student of character, and we should be glad to have a careful analysis of it. There might have been an epileptic strain in his organism, which produced occasionally fits of melancholy or short periods of actual insanity.

PERSONAL.

KESHUB CHUKDER SEN, distinguished as the early promoter of the Brahma-Somaj in India, died early in January. Allusion is made to him in the sketch of Mr. Mozoomdar in this number.

A PEASANT named Zygelof lately died at Odesa, aged 147 years. His son is still alive at the age of 117; he has a grandson of 85, and a great-grandson of 40 years. Give us more data; we are doubtful.

TURGENIEFF's brain weighed, it is said, 2012 grammes (over 70 ounces), and was the heaviest human brain ever weighed. The average weight is 1390 grammes. Cuvier's brain weighed 1800 grammes.

CANDIDATES for places in the schools of Michigan must prepare to pass a satisfactory examination in physiology and hygiene, with particular reference to the effects of alcoholic drinks, stimulants, and narcotics upon the human system. The law takes effect Sept. 1st, this year.

OLD SHOES.

How much a man is like old shoes !
 For instance, both a soul may lose ;
 Both have been tanned ; both are made tight
 By cobblers ; both get left and right ;
 Both need a mate to be complete,
 And both are made to go on feet.
 They both need heeling, oft are sold,
 And both in time all turn to mold.
 With shoes the last is first ; with men
 The first shall be the last ; and when
 The shoes wear out they're mended new :
 When men wear out they're men-dead, too.
 They both are trod upon, and both
 Will tread on others, nothing loath.
 Both have their ties, and both incline
 When polished in the world to shine :
 And both peg out—and would you choose
 To be a man or be his shoes ?



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

SUICIDE: History of the Penal Laws relating to it in their Legal, Social, Moral, and Religious Aspects, in Ancient and Modern Times. By R. S. Guernsey, of the New York Bar. Read before the New York Medico-Legal Society, September 23, 1875. Revised and Enlarged. 8vo, pp. 46. New York: L. R. Strouse & Co.

In so limited a space as 46 octavo pages it could not be expected that the subject of Suicide would be treated with that thoroughness of topic and illustration which would satisfy a critic well read in the mortuary statistics of civilized nations; but for the purposes of the average practitioner of law or medicine the volume is a very useful compilation. We advise our law-makers to read it, and apply some of the hints, which they will certainly obtain by so doing, to legislation for the estoppel of the growing evil of *felo de se* among us. Mr. Guernsey gives us a practical notion of the extent of the literature of suicide, and how multiform are its phases, and not unfrequently suggests a point having a psychological bearing which would doubtless prove an interesting study if followed up.

HAND-SAWS: THEIR USE, CARE, AND ABUSE. How to Select, and how to File them. By Fred. T. Hodgson.

Is another practical work from a writer who has a close eye to the wants of the mechanic. It is filled with directions, hints, and advice that will be welcomed especially by the fellow who "never saw a saw saw like his saw saws." The items relate to selecting, using, and filing all sorts of saws, and illustrations accompany the text to make the clear language clearer. The book is published by the Industrial Publication Company of New York. Price \$1.

FOR MOTHERS AND DAUGHTERS. A Manual of Hygiene for Women and the Household. By Mrs. E. G. Cook, M.D. Illustrated. 12mo, pp. 292. Cloth, price, \$1.50. New York: Fowler & Wells, publishers.

We have looked into this work with much interest, because from the first line of the preface to the last of Chapter XX. it bears the impress of a "first hand" treatise,—not the compilation of one who knows a little of hygiene and physiology, and employs leisure in making up a book for reputation, but the sincere and thoughtful notes of a physician who writes what she has seen and what she knows,

and believes implicitly that she can do society some good by giving to its mothers and daughters the best fruits of a long experience.

She knows what women need; a wife and mother herself, a physician who has ministered in a thousand homes, she comes before the public with authority to tell some things, at least, which have not become commonplace in the literature of special physiology, and many things of high practical importance which should be known to all women, and men too. "The demands of society must be studied, and that which kills ignored," Dr. Cook says, "if women wish to attain to a state of physical perfection," and then she insists that "it is no more difficult to understand the laws of health than many other things in which women become proficient. If they study them with as much thought as is given to the making of dresses and bonnets, or in vieing with each other in making dainties for the table, they will find them quite as easy."

Writing earnestly, and with all the confidence of experience, the author is clear and direct in her style and simple in phraseology, adapting her book to the use of all classes of women. She would redeem them from slavery to pernicious habits by explaining how bad habits injure the health and body; and by giving them good counsel and instruction, she would make them obedient to the principles of physiology and hygiene.

BEYOND THE GATES. By Elizabeth Stuart Phelps, author of "The Gates Ajar," etc. 16mo, pp. 196. Price \$1.25. Boston: Houghton, Mifflin & Co.

Books, whether of the essay class or of the narrative type, that touch upon the subject of the future estate of man, that life beyond whose near boundary is death, possess an attraction for a large circle of people. We do not refer to spiritualists when we say this, but to people who make up the rank and file of society, the average church attendant and believer in Christianity. To them that have seen beloved friends close their eyes in death, books that depict in well-chosen terms and feeling vein the joyous life of a Paradisiacal existence, come as soothing and assuring ministers. Miss Phelps caught public attention some years ago by her "Gates Ajar," in which she pictured some vistas of the life immortal, seen as it were from afar or through a haze. Now she comes with a volume which presents what seems to be an inner view of heaven, its pursuits and experience being related, as it were, from the experience of one who is there and has been permitted to communicate with the dear ones left behind. It reminds us of a book lately published by a Swedenborgian, but in some respects is more refined in tone, and its incidents are more skillfully managed. The author is quite free from restraints that might be supposed to color the imagination of a sectarian, yet indicates throughout the purpose of one who is earnest in her endeavor to present a picture of spiritual things which shall be pure, healthful, and elevating, and withal devout.

PUBLICATIONS RECEIVED.

SOLOS OF FLOWERS. Pansies, Columbines, Daisies, Ferns; Painted and Illustrated by Susie B. Schelding. Small quarto, price \$1.50. White, Stokes & Allen, Publishers, New York. Nothing could be more appropriate as a gift to a lady friend than this. The designs are in oil colors, and vividly represent the flowers for which they are named. As to the poetical selections, they are entirely appropriate.

SUSIE'S OPINIONS, and Other Stories. By Faye Huntington, author of "Ripley Parsonage," etc.

HOLLY SPRAYS. By Lucia E. V. Campbell. Both are titles of two short stories adapted to interest young people. They are well written, lively, instructive. Published by the National Temperance Society of New York. Price in cloth, 60 cents each.

ONE THOUSAND AND ONE RIDDLES, by Nellie Greenway, is a little collection of riddles, conundrums, enigmas, and hints for acting charades. A pleasant little book for children to have at this holiday season, on account of its many suggestions for home amusement. Price 15 cents. J. S. Ogilvie & Co., New York.

THE SANITARIAN for January appears in a new form, that of a monthly. It is considerably enlarged, and thus contains a greater variety of matter than before, and we note a decided improvement in its general character. We are glad to acknowledge it in this column, because of the independence usually exhibited by its editor on the subjects of sanitation, a point of difference from the other so-called sanitary periodicals which is very marked. Price \$4 a year. A. N. Bell, M.D., is editor. New York.

THE MANUFACTURER AND BUILDER, New York, is deserving of commendation to a mechanic; every number containing material of service to workers in iron and wood.

THE HOME JOURNAL maintains its place as a society organ; but we think it has shown an improved literary character of late; its articles on language and art matters come from excellent sources.

THE MUSICAL HERALD, a monthly published in Boston, deserves mention, being less trashy in its make-up than the majority of current literature relating to music.

WIDE AWAKE for January promises a feast of good things to the juveniles of '84 who shall read it; we think that its tone will have less of the "awful funny" than heretofore; and supply to its youthful subscribers and readers food for some sober reflection.

THE ECLECTIC MAGAZINE AND FOREIGN LITERATURE. E. R. Pelton, publisher, New York. *The Art Journal*, published by Mr. Thomas, of New York, and *Harper's Bazar*, the weekly organ of fashion and society so well known to American ladies, have begun the year in a manner which must be satisfactory to those who receive their current visits.

ALL THE LEADING DRUGGISTS SELL PEARS' SOAP

PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP

PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP

PEARS' SOAP

THE FAMOUS ENGLISH COMPLEXION SOAP.



H Cleanliness is next to Godliness, Soap must be considered as a Means of Grace and a Clergyman who recommends moral things should be willing to recommend Soap. I am told that my commendation of Pears' Soap has opened for it a large sale in the United States. I am willing to stand by every word in favor of it that I ever uttered. A man must be fastidious indeed who is not satisfied with it.

Henry Ward Beecher



ESTABLISHED IN LONDON 100 YEARS.

A SPECIALTY FOR THE SKIN & COMPLEXION,
As recommended by the greatest English authority on the Skin,
PROF. SIR ERASMUS WILSON, F. R. S.
Pres. of the Royal Col. of Surgeons, England.

Nothing adds so much to personal appearance as a **Bright, Clear Complexion and a Soft Skin.** With these the plainest features become attractive. Without them the handsomest are but coldly impressive.

Many a complexion is marred by impure alkaline and Colored Toilet Soap.

PEARS' SOAP

Is specially prepared for the delicate skin of ladies and children and others sensitive to the weather, winter or summer. In England it is pre-eminently the complexion Soap, and is recommended by all the best authorities, as, on account of its emollient, non-irritant character, **Redness, Roughness and Chapping are prevented, and a clear and bright appearance and a soft, velvety condition imparted and maintained, and a good, healthful and attractive complexion ensured.**

Its agreeable and lasting perfume, beautiful appearance, and soothing properties commend it as the greatest luxury of the toilet. Its durability and consequent economy is remarkable.

15 INTERNATIONAL AWARDS.

ALL THE LEADING DRUGGISTS SELL PEARS' SOAP

FOWLER & WELLS' WINTER PUBLICATIONS

READY JANUARY 15th.

A Bachelor's Talks about Married Life

And Things Adjacent. By Rev. William Aikman, D.D., author of "Life at Home." Handsomely bound, \$1.50; full gilt, \$2.00.

This work is likely to prove one of the most popular books published on the subject of the home relation in many years. Written from a stand-point outside of family life, it is full of sharp, practical suggestions, which will be enjoyed wherever read, and by all classes.

NEW EDITION.

Life at Home;

Or, the Family and its Members. Including Husbands and Wives, Parents, Children, Brothers, Sisters, Employers and Employed, the Altar in the House, etc. By Rev. Wm. Aikman, D.D. 1 volume, 12mo. Nearly 300 pages, uniform with "Bachelor's Talks." Price, \$1.50; extra gilt, \$2.00.

It is seldom that a book is published which receives such universal commendation from the people, and the press—both religious and secular—as this. The new edition is very handsomely bound, uniformly with "Bachelor's Talks."

For Mothers and Daughters.

A Manual of Hygiene for Women and the Household. Illustrated. By Mrs. E. G. Cook, M.D. Price, \$1.50.

The author of this work has had an active professional experience of more than a quarter of a century, and this is the result of her widely extended practice. It is a work which should be in the hands of every woman, and is likely to have a very extended sale.

NEW ILLUSTRATED EDITION.

Horses: Their Feed and their Feet.

A Manual of Horse Hygiene, invaluable to the Veteran and the Novice. Pointing out the causes of disease and how to prevent and counteract them. By C. E. Page, M.D., author of "How to Feed the Baby," "Natural Cure," etc., with a Treatise and Notes on Shoeing, by Sir Geo. Cox and Col. M. C. Weld. Illustrated. Paper, 50c.; clo., 75c.

This new edition is enlarged and illustrated with a number of pictures of famous and thoroughbred horses, including "Jay-Eye-See," "Alcantara," "Parole," "Eole," also specimens of "Norman," "Cleveland Bay," "Percheron" and other breeds, adding very much to the interest and value of the book.

IN PRESS.

Massage.

Giving the Principles and Directions for its Application in all forms of chronic diseases. By Geo. H. Taylor, M.D. 12mo. \$1.50.

Dr. Taylor is the pioneer of the movement cure as a system of medical treatment, and he has also thoroughly systematized the principles of massage and their applications. This new work explains the new method so fully as to bring the matter within easy comprehension of all intelligent persons.

How to Study Character;

Or, the True Basis for the Science of Mind. By Thomas A. Hyde. Price, 50 cents.

In this work it is shown that Phrenology is the only reliable method for a proper estimate of character.

A Catechism of Phrenology,

Illustrating the Principles of the Science, by means of short conversational questions and answers, thus adapting it alike to young and old, with many illustrations. Paper, 50c.

We have here a very valuable little work, presenting the subject in a familiar manner by questions and answers, adapting it for home study, and for the use of teachers who wish to place it in the hands of their scholars for class study.

NOW READY.

The Health Miscellany.

A series of papers on Health topics. Price, 25 cents.

We have collected together a number of papers on important subjects relating to health, including Dr. Trall's articles on Catarrh and Rheumatism; also Baneful Habits affecting Health; The Teeth, and How to Care for Them; The Back-ache; Causes of Malarial Diseases; Typhoid Fever; How to Restore Life in the Apparently Drowned; Hygienic Dwellings; How to Clothe the Babies; Getting used to it, etc. Single articles are well worth the price of all.

Tea and Coffee:

Its Physical, Intellectual, and Moral Effects on the Human System. By Dr. Alcott, with notes and additions by Nelson Sizer. Paper, price, 25 cents.

Dr. Alcott's work has had a wide circulation, and believing its usefulness would be greatly increased by additional matter presenting the more recent phases of the subject, notes and additions have been made by Mr. Sizer, whose observations have been very extended.

FOWLER & WELLS, Publishers,
753 Broadway, New York.

Old Series, Vol. 78
 March 1884.

KNOW THYSELF

New Series, Vol. 29
 NUMBER 3.



A First-class Monthly Magazine, devoted to the Study of Human Nature in all its Phases.

SUBSCRIPTION TERMS.
 1 copy, 1 year, . . . \$2.00
 1 copy, 6 months, . . . \$1.00
 1 copy, 1 month, . . . 20c.
 10 copies, 1 year . . . \$15.00

CONTENTS.

I. Theodore Parker.—Portrait . . .	123
II. The Territory of Alaska.—Illus. . .	128
III. The Poetess of Ancient Greece. Sappho.—Portrait	133
IV. Science a Little Mixed	138
V. Men of Ideas	142
VI. Signor Mario, the Distinguished Singer.—Portrait	143
VII. A Revised Classification	145
VIII. The Social Ideal	146
IX. Some General Observations on AMATIVENESS.—No. 5	149
X. Ducan's Motto	154
XI. The Head as an Aid to Constitu- TIONAL DIAGNOSIS	157
XII. Brain Work	159
XIII. How to Grow	161

Notes in Science and Agriculture.— Source of the Sun's Heat; Two Types of Teachers and Students; Growth of Boys and Girls; How Oil Smooths Water; Original Application of Sociology; Stuffed Spiders; To Raise Mushrooms; The New York Anthropological Society; Snow as a Protector of Soil	164
Poetry.—The Purest Pearl; Wedded Love; A Query.	
Editorial Items.—Fundamentals in Political Economy; Is it Worth the Trouble? A Revised Classification	167
Answers to Correspondents.—Quality; The Classical Cartman; Weak Eyes; Defi- nition of Truth; Impressions; Self-Esteem in Relation to Smoking and Drinking; Quit them and Feels Better; Organs on the Median Line. WHAT THEY SAY— From an Examiner's Note-Book; Moral Eating	173
Personal—Wisdom—Mirth—Library.	

ENTERED AT THE POST-OFFICE AT NEW YORK AS SECOND-CLASS MATTER.
 FOWLER & WELLS, Publishers, 753 Broadway, New York.
 L. N. FOWLER, Imperial Buildings, London, England.

PREMIUM LIST.

We present below a List of Articles offered as Premiums for Clubs to THE PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH, and would call special attention to the very liberal offers and conditions given. The articles are all new and useful; the very best of their kind. Besides these, to each subscriber is given a splendid Premium.

No. of PREM.	Names of Articles offered as Premiums for The Phrenological Journal and Science of Health. <i>An Illustrated and Descriptive Circular will be sent on receipt of stamp.</i>	Price.	No. of Subscribers at \$2
1	Gents' Watch, Nickel, Cylinder, Stem-Winder.....	\$6 5 00	7
2	Gents' Watch, Nickel, Lever, Stem-Winder.....	13 00	13
3	Gents' Watch, Silver, Lever, Stem-Winder.....	15 00	20
4	Gents' Watch, Gold Hunting Case, Stem-Winder.....	65 00	100
5	Ladies' Watch, Nickel Cylinder, Stem-Winder.....	6 00	10
6	Ladies' Watch, Silver, Cylinder, Stem-Winder.....	10 00	14
7	Ladies' Watch, 5 Carat Lever, Stem-Winder.....	21 00	30
8	Ladies' Watch, 14 Carat Lever, Stem-Winder.....	34 00	35
9	One Dozen Silver Plated Tea Spoons.....	6 00	6
10	One-half Dozen Silver Plated Table Spoons.....	6 00	6
11	One Dozen Silver Plated Dessert Spoons.....	70 00	10
12	One Dozen Silver Plated Table Forks.....	12 00	13
13	One Dozen Silver Plated, Solid Steel Knives.....	8 50	9
14	Either a Silver Plated Castor or Butter Dish.....	7 00	7
15	An Elegant Silver Plated Fruit or Cake Basket.....	9 00	9
16	The Amateur's Photographic Outfit.....	12 00	13
17	An Elegant Graphoscope.....	6 00	6
18	Boy's Tool Chest, 45 assorted tools.....	5 00	7
19	Youth's Tool Chest, 61 assorted tools.....	10 00	14
20	Gentleman's Tool Chest, 85 assorted tools.....	22 50	30
21	Family Grind-Stone.....	3 00	4
22	Kidder's Electro Magnetic Machine, No. 4.....	20 00	20
23	Kidder's Electro Magnetic Machine, with Tip cup, No. 5.....	27 00	35
24	Household Microscope.....	5 00	6
25	The Library Microscope.....	10 00	10
26	The Home Learners' Telegraphic Instrument.....	4 50	6
27	The Combination Fruit Press.....	3 00	4
28	Gold Plated Paragon Pencil.....	3 00	3
29	Gold Plated Telescopic Pen and Pencil.....	5 00	5
30	Telescopic or Acromatic Spy-Glass.....	3 50	5
31	An Eight-Day Clock, "Victoria".....	8 00	8
32	An Alarm Clock, "Joker" Lever.....	6 00	6
33	The Mechanical Organette.....	8 00	8
34	The "Holly Scroll Saw".....	3 00	4
35	The "Demas" Scroll Saw and Lathe.....	8 00	10
36	German Student Lamp.....	4 75	6
37	Gentlemen's Rubber Over-Coat.....	4 00	4
38	Ladies' Rubber Water-Proof Cloak.....	4 00	4
39	Rubber Leggins, (Gents', Ladies' or Misses').....	1 50	2
40	Rubber Water-Bottle, 2 quarts.....	2 00	2
41	Mattson's Rubber Syringe.....	3 00	3
42	Goodyear's Health Lift.....	5 00	5
43	Goodyear's Pocket Gymnasium, Family Set.....	10 00	10
44	Pump Plant Sprinkler.....	1 50	2
45	Set of Portraits for Lecturers.....	40 00	40
46	Set of Phrenological Specimens.....	40 00	40
47	Small Set of Phrenological Specimens.....	10 00	10
48	Set Lambert's Physiological Plates.....	10 00	10
49	Worcester's Unabridged Dictionary.....	10 00	10
50	Student's Set of Phrenological Works, with Bust.....	10 00	8
51	Geo. Combe's Works, Uniform edition, 4 vols.....	5 00	4
52	New Physiognomy; or, Signs of Character.....	5 00	4
53	The Hydropathic Encyclopedia, by R. T. Trall, M. D.....	4 00	4
54	The Family Physician, By Joel Shew, M. D.....	3 00	3
55	Health in the Household; or, Hygienic Cookery.....	3 00	3
56	History of Woman Suffrage, either volume, cloth.....	5 00	5
57	Cowan's Science of a New Life.....	3 00	3
58	Phrenological Busts, Large.....	1 00	1
59	Cast of Human Brain.....	1 00	1
60	Emphatic Diaglott; or, New Testament in Greek and English.....	4 00	4
61	A Set Science of Health, Four Years, bound in muslin.....	12 00	9
62	THE PHRENOLOGICAL JOURNAL, New Series, 13 years, bound.....	45 00	20
63	THE PHRENOLOGICAL JOURNAL, any one year, bound.....	4 00	3
64	A Year's Subscription to THE PHRENOLOGICAL JOURNAL.....	9 00	3
65	Library of Our Publications, Agent's Selection.....	5 00	4
66	Library of Our Publications, Agent's Selection.....	10 00	7
67	Library of Our Publications, Agent's Selection.....	25 00	15
68	A Full Written Description of Character from Photographs.....	5 00	4
69	A Scholarship in the American Institute of Phrenology.....	100 00	100

Send in names as fast as received, stating they are on premium account, and all will be placed to your credit and premium sent when the number is complete. Send 10 cents for Specimens, Prospectuses, Blanks, etc., used in canvassing. Names may be sent from different post-offices if desired. Remit P. O. Orders, or in Registered Letters. Stamps received. Address

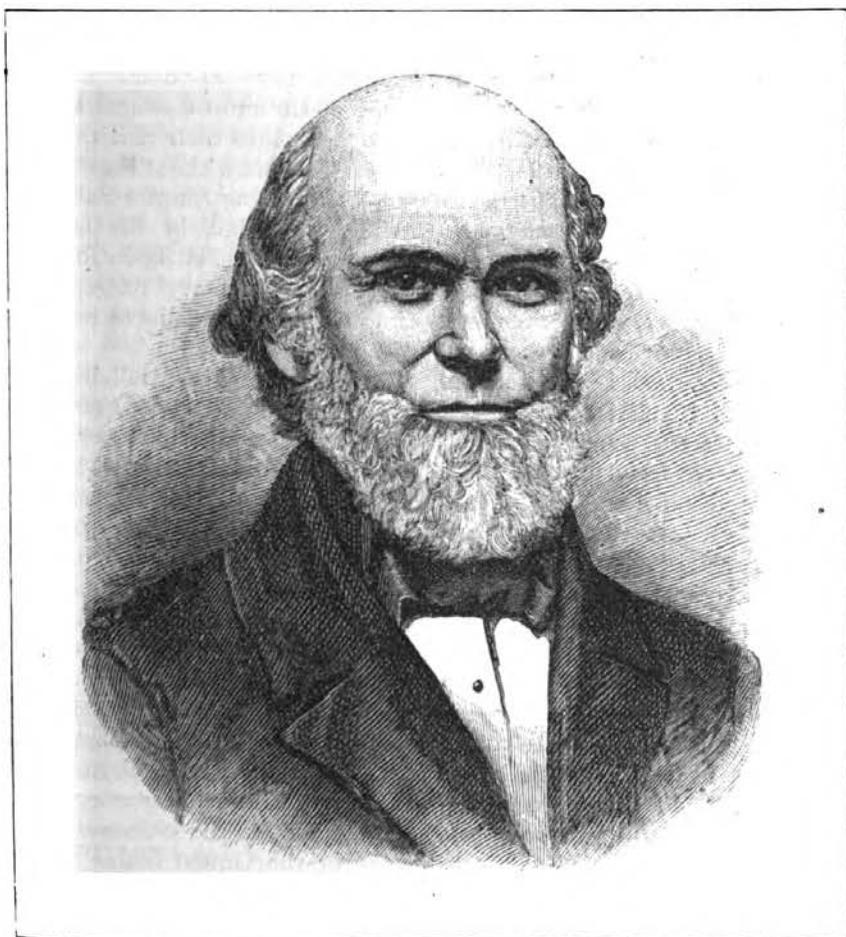
FOWLER & WELLS, Publishers, 753 Broadway, N. Y.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 78. 1884.

NUMBER 3.]

March, 1884.

[WHOLE No. 543.



THEODORE PARKER.

THEODORE PARKER, though, physically speaking, not oversized, was intellectually "a mountainous man." In the forefront of reform, he stood grouped with great men, but there was not one tall enough to throw a shadow upon him. In scholarship he was the peer of the best-educated men that ever won a parchment in Cambridge University. He could tell the truth in many tongues; could

solve the problems that puzzled some of the oldest and wisest heads, especially those problems that related to human development and literary and scientific advancement. He stood in the pulpit the champion of liberty, of justice, of mercy, of charity and purity, but he never made a "coward's castle" of the sacred desk. He had the courage of conviction, and did not timidly weigh and measure his words before he uttered them, fearing the censure of critics. If his feathered shafts were "boomerangs" that might return and wound him, he did not try to make a virtue of his mistakes, nor seek the martyr's crown, by pointing piteously to the blood-stains on his shield. As a writer—if he did not, like Luther, throw his inkstand at the devil—he certainly threw the contents of it at his black majesty, not sparing him when, in "off color," he (the devil) sought to pass as "an angel of light."

Theodore Parker assailed drunkenness, and slavery, and tyranny, and dishonesty, and licentiousness, and hypocrisy, and other evils (shall I call them devils?), and his blows, in the language of the ring, came "straight from the shoulder," or rather from just below it, the heart, and the heart-beat is more powerful than the brutal fist of a Sullivan—it can knock down kings and empires.

Four hundred years have failed to silence the echoes of Luther's hammer on the church-door, but it is his great heart behind the hammer that we hear; its pulse is louder than the stroke of the instrument that nailed the thesis fast at Wittenberg. Theodore Parker never appeared before an audience on the lyceum platform or in his own pulpit—if a desk on a platform may be called a pulpit—without giving his hearers something to think about. In his day, the fogies of Boston feared him, as the enemies of Greece feared the Athenian orator. How he lashed the bogus judges and administrators of the law in Massachusetts! When the United States Commissioner and his constables were in pursuit of the fugitives, Helen Craft and her husband,

Theodore Parker sheltered these fugitives under his own roof, and shouldering his gun—the battle-piece his father carried in the Revolutionary war—he stood sentinel at his own door, determined to guard his guests and protect them at the risk of his liberty and life. He was noted for physical and moral courage as well as he was for greatness of soul and intellect. Although the "Hunkers" of the American Athens sought to crucify him at the crossroads of opinion, and exerted their wit and eloquence to make him unpopular and contemptible, he was appreciated by a "favored few" at home and abroad. Some of the most distinguished men of Europe thought their visit to this country was a failure without hearing "Parker speak and seeing Niagara Falls." Chief-Justice Coleridge, in his late visit to Boston, when called upon for a speech, made complimentary reference to the famous scholar and brave reformer and preacher.

It was in the Music Hall, in a vast congregation gathered to hear Theodore Parker preach, that I saw Frederika Bremer, a neat, little, gray-haired lady. It was there I saw the stately form and pleasant, yet thoughtful, face of Thackeray. Longfellow, Lowell, Whittier, Whipple, Garrison, and Phillips were frequently among his auditors. They were not all Unitarians, but they all admired his earnest and able discourses and his elegant diction. Garrison was or had been a Baptist, Phillips was or had been a Presbyterian, etc. I shall never forget the scene which I saw in Boston when the citizen-soldiers, with some of the United States forces, were called out to prevent the friends of a runaway slave (Simms) rescuing the unhappy man from the hands of the officers who had arrested him. Judge Shaw had interpreted the law in favor of the master, and the indignant masses of the people swarmed like angry bees about the court-house, which had been surrounded by heavy chains to protect the building and its judicial occupants from assault.

The burly judge had to stoop and crouch under the links of the emblems of servitude to reach the "throne" of justice. Theodore Parker and Wendell Phillips—two of the most influential champions of freedom—hastened to the seat of law, and made a last appeal for the protection of the fugitive. That day Parker and Phillips, arm in arm, walked from the court-house cheered by their friends. Their defeat was temporary; their triumph in the near future, and that triumph is now history.

The subject of this sketch was born in Lexington, Mass., August 24, 1810.* He worked on the old homestead farm (which had belonged to his ancestors one hundred and fifty years), going to school at intervals, until he was seventeen years of age, when he began to teach school in the winter months. In 1820, having filled his leisure with hard study, he was prepared to enter Harvard College, studying at home, only going to Cambridge for examination. In 1831 he taught a select school in Boston, occupying his spare hours studying Latin, Greek, Hebrew, French, German, Spanish, and metaphysics. The next year (1832) he opened a private school in Watertown, Mass.; he had only two pupils, and one of them was a charity boy; but his diligence and enterprise were soon reward-

* The portrait is engraved from a likeness, said by one who knew Mr. Parker, to show his natural expression when in conversation. The crown rose loftily, showing very marked firmness. Benevolence was also very prominent, and the organs extending from that downward on the median line, especially in the reflective region, were large and influential. He had cultivated his memory so that he could remember the substance of a large volume with but a single reading, and he was conversant with twenty-eight languages at the time of his death. Having in view the preparation of a work on the religions of the world, he had studied the languages of Europe and Asia for the purpose of obtaining data relating to his purpose at first hand. Declining health prevented him from writing the book. In this day of memorial projects, it may be apposite to add that a merchant of Boston, who died two years ago, bequeathed \$5,000 to be devoted to the erection of a monument in honor of Mr. Parker.—[Ed. P. J.]

ed with a school of more than fifty scholars. For their instruction, and for the benefit of a Sunday-school, he wrote a history of the Jews, which still remains in manuscript. He entered the Divinity School of Cambridge in 1832. About this time Syriac, Arabic, Danish, and Swedish were added to his acquisitions of language. For a time he was one of the editors of a scriptural magazine published under the auspices of his class. In 1836 he preached in various pulpits, and was settled as pastor of the Unitarian church at West Roxbury the following year. Here he advanced views which were not in harmony with his church and society. Other discourses on theological questions widened the breach and inspired a bitter controversy. In 1841 and 1842 he delivered and published lectures and sermons which did not conciliate the critics in his own or in the orthodox churches. In 1843 he travelled in England, Italy, France, and Germany; but the battle was renewed when he returned in 1844. In 1845 he began to preach in the Boston Melodeon. [It was there the writer heard his great discourse on the death of Daniel Webster.] About this time he was a contributor to the *Dial* and the *Massachusetts Quarterly*, which he edited three years. He became a popular lyceum lecturer. He also joined with James Russell Lowell and other leading spirits in opposition to the Mexican War. He was one of the foremost and ablest advocates of total abstinence and anti-slavery, and his ringing blows echoed over the land. In 1854, at the time of the rendition of Anthony Burns, an indictment was brought against him for resisting an officer, but he escaped from the clutches of the law on a thin plank of technicality. In November, 1852, he preached for the first time in the famous Music Hall. He continued to fill the great building to overflowing with the *élite* and *litterati* of Boston for seven years, when an attack of bleeding at the lungs made it necessary for him to seek rest and health abroad. He visited Santa Cruz, Switzerland, and Italy, remaining

in Rome during the winter of 1859. In the spring of 1860 he arrived at Florence, enfeebled and broken in health, and he died there on the 10th of May of that year, and there he was buried in the cemetery outside the walls. His library, of more than 13,000 volumes, he bequeathed to the Boston Public Library. His published lectures, speeches, essays, and sermons fill many volumes. Frances Power Cobbe, H. B. Fuller, John Weiss, and O. B. Frothingham have edited various editions of his works.

Theodore Parker had few of the graces of the drawing-room. He walked as though stumbling over furrows in a plowed field; indeed, the mantle of inspiration to become a scholar and teacher fell upon him while he was working behind the plow on his father's farm. His eloquence consisted chiefly in his transparent purity of motive and earnest endeavor to instruct and improve his fellow-men, and in the harmony and beauty of his thought and speech. His sermons were poems, without being cut and measured by metrical rules. His voice was often husky, and when he began to speak his words seemed to stumble over his lips, which were rather thick. When unexcited in debate or in discourse, his face was pale, and his blue eyes were dull; but when he was fairly started his soul shone out on his face, illuminating his features with the light of spiritual beauty. The last time I heard him was at a lyceum lecture entertainment, a few years before he died. He was then bald, and his beard, worn full to protect his throat, was white as wool. A stranger meeting him in the street would have been apt to mistake him for a farmer in his Sunday suit, and never dream that he had seen one of the greatest scholars and teachers of his day. Theodore Parker had the courage of a soldier combined with the tenderness of a woman; and he never for a moment obscured his manhood in what may have seemed to be the mist and fog of metaphysical attainments and utopian views of human and divine attributes.

Not long ago I heard a clergyman express great gratification because Theodore Parker is dead. He was bitter in his denunciation of the distinguished preacher because he hated his theological tenets. He considered him an enemy to God and to man—a dead infidel. In the following extracts, the famous reformer and scholar speaks for himself. Out of his own eloquent mouth, and from his own classical pen, his detractor is condemned.

Speaking of the material world, he said: "The natural world which man lives on, and lives by, I mean the material world of nature all about us, is the same thing to all who live in the same latitude and place."

"The ground under our feet is so firm set and solid, the heavens over our head are so magnificent, the air about us is so bland, while it is still so powerful, when it is stirred into stormy motion—what a world it is! All day long there are the light, the clouds, the trees, the waters."

"All night long the good God shepherds the stars in the wide pastures of heaven; He goeth before them, leadeth them out, calleth every star by name, and they know His voice."

"To others who see the great uses in the power of things, the great loveliness in the beauty of things, the great wisdom in the meaning of things, it is a serious world—very serious; but a lovely world very lovely, and a divine world very divine, full of God's power, God's wisdom, God's justice, God's beauty, and God's love, running out into the blossoms of the ground and the blossoms of the sky, the whole universe a great manifold flower of God, who holds it in His own right hand."

Referring to mind in the world of matter, he says: "Every rose is an autograph from the hand of the Almighty God. On this world about us, He has inscribed His thought in those marvellous hieroglyphs which sense and science have been these many thousand years seeking to understand."

"How has the civilization of the world thus far been achieved? By the great

men coming together a thousand years ago, and saying, 'Let us advance mankind.' The great men were not great enough for that. It has taken place in the providence of God, who from perfect motives, of perfect material, for a perfect purpose, as perfect means, created this human nature, put into it this reserve of power, put about it this reserve of material elements wherewith to make a Jacob's ladder to clamber continually upward toward God, our prayer being the hand which reaches up, while our practice is the foot which sustains the weight which the prayer steadies."

"Do you suppose it was by accident that God thus starred the earth and sky with loveliness, and set angels in the sun, and ordained each particular star as an evangelist of beauty? I tell you No! But in these hieroglyphs He publishes the wisdom and the friendliness of the Infinite."

"Surely there is a great Benefactor somewhere. And if the atheist will say that it is all chance—that it comes from nothing and means nothing—why, he ever must, at least we must let him. But in all this I see the loveliness of the Infinite Father."

Speaking of the nature of man, the preacher said: "In all the wonders of God, naught is so admirable as the admiring man. Other things in comparison seem only as the sparks which flew when God's arm beat the anvil and fashioned man. The material splendors of the world, grand and gorgeous as they are to me, seem very little when measured by the spiritual glories of the meanest man. The Andes fill me with less amazement than the mountain-minded Humboldt who ascends and measures them. To the Christian pilgrim, the mountains about compact Jerusalem are as nothing to the vast soul of Moses, Esaias, Samuel, Jesus, who made the whole land sanctified in our remembrance."

Human character and conduct are described as follows: "We hate to be in a minority. But the brave man, in his own soul intimate with God, will always try

himself by the pure eyes and perfect witness of the all-judging God. He will ask, not What will men admire? but What will God approve?"

The foregoing quotations show that Theodore Parker was not an infidel. He was a radical Unitarian, and his hostility to oppression, his assaults on "hunkerism," his masterly advocacy of equal and exact justice to all, irrespective of color, or creed, or condition, roused the opposition and enmity of the conservative cotton lords of Boston, and their cry of "mad dog" alarmed timid men throughout the State of Massachusetts. If he was heretical in his theology, he was humane in his morality, and those who knew him best loved him most. They knew that if he was heterodox in doctrine, he was orthodox in deed, and they knew that he had the courage and the integrity of a brave, honest man. He might have mistaken his creed, but he could not be a hypocrite and wear a mask. Like Cortez, who burned his ships when he began his assault on Mexico, he marched to the conflict in the light of the burning wreck of an effete conservatism. He invented new commandments, or rather he discovered in the decalogue a new interpretation of the old one. "Thou shalt not hold thy fellow-man in bonds, nor poison him with alcohol, nor rob him of his wages, nor be unjust and cruel to the poor." "Justice and liberty" were the watch-words of this heroic champion of human rights.

In his essay or lecture on the "Character of Jesus of Nazareth," Mr. Parker says: "When He (Jesus) spoke, some said that it thundered; some said that an angel spoke, and some said it was the eloquence of genius. Studying in the schools makes nothing like it." "There is not one single word in the three gospels which betrays the youth of Jesus." "But His greater greatness comes not from the intellect, but from a higher source. It is eminence of conscience, heart, and soul; in a word, it is religious eminence. Here are the proofs of it: He makes religion consist in piety and morality, not in be-

lief; in forms, not in outside devotion. He knew it is a very easy thing to be devout after the common fashion, as easy to make prayers as to fill your hand with dust from the street. Was it a little thing in Jesus to declare that religion consisted in piety and morality? All the world over the priests made religion to consist in forms, rituals, mutilating the body and spirit, in attending to artificial ordinances. Jesus summed up all the law and the prophets in love to God and love to man." "Jesus turned the heathen gods out of the heathen heaven, because He was more God than they, and He ascended the

throne of Jehovah." "To the highest conception of God men had, they have now added the gentleness and love of Christ, and so enriched the idea of God." "What did Jesus come for? To seek and to save that which was lost, not to destroy it; and to lose His own life, not to save it."

Many believers in the divinity of Christ and the divine authenticity of the Scriptures (like the writer), who question the unorthodox sentiments of Theodore Parker, admire the courage, the manliness, the learning and culture, the talent and genius of the great radical.

GEORGE W. BUNGAY.

THE PUREST PEARL.

[FROM THE DANISH.]

A JEWEL rare, that gems the ages down,
The purest pearl of sorrow's drooping crown
I sparkling glow on Joy's enraptured breast,
Or hide below, where Memory's surges rest.

I turn the trailing robe of tranquil Night,
Or beam on Morning's brow with beauty bright;
I wreath the green Hope with jewels gleaming fair;
I rise with trembling faith or sorrowing prayer.

In all the earth, wherever heart may beat,
I haste the coming, bless the parting feet;
In song or story, poetry or art,
I bear the most æsthetic, tragic part.

Where laughing Mirth the weary hour beguiles,
There oft I glow with Pleasure's merry smiles;
No bar or bolt, no binding clasp or chain,
Can ever once my rising path restrain.

Oftimes I come from Meditation's throne
Like Evening's gentle star, serene, alone;

When o'er the heart have waves of sorrow rolled,
My sisters all with me their pearls unfold.

A jeweller unseen my pearls hath set,
On darkest brown or glowing blue or jet.
My beauty shines from many windows bright
At every festive morn or bridal night.

The heart's best gold I often freely win
Where song or speech may never enter in;
I was from Heaven Love's silent angel sent,
Far more than tongue forever eloquent.

In Love's fair crown in me you clearly view
Pearl, turquoise, emerald, diamond, ruby too;
In every land, o'er every grave, I ween,
I am Love's dearest monument unseen.

Pray, can you now my simple name recall?
Revered, beloved, and cherished dear by all,
With every greeting sweet, with every sad farewell,
Ever on earth, never in Heaven I dwell.

LYDIA M. MILLARD.

THE TERRITORY OF ALASKA.

THE value of the great Territory acquired by purchase from Russia, through the urgency of Mr. Seward while Secretary of State, announces itself more and more as Americans become better acquainted with its characteristics. Strong objections were made in the beginning to the measure, it being alleged by opponents that the country, on account of its

geographical situation, was little more than a desolate, uninhabitable waste, and any effort to settle it or render it of service would cost more than the possible returns. It has been found, however, that a large part of the Territory, in addition to the numerous islands which constitute in themselves a very considerable domain, is not only inhabitable, but abounding in

sources of wealth, and that enterprising colonists could soon build up large and flourishing settlements.

The area of Alaska is over 500,000 square miles, or ten times that of the State of New York, three times that of California, and twice that of Texas. The climate is tempered by a warm stream from the Japanese side of the Pacific, which raises the temperature of the whole north-west coast of America. The records of the thermometer on the Alaskan peninsula, and the botany and conchol-

weather is experienced in summer, especially in Cook's Inlet. The average temperature of the Aleutian Islands, which lie 25° or more west of Sitka, and, consequently, far out in the warm Asiatic currents, is between 35° and 40° Fah.

The islands and a considerable extent of coast have been pretty thoroughly explored. The mighty Yukon River has been ascended by bold adventurers, and stations for trading in furs established 1,200 miles or more from its mouth. At Fort Yukon is an old station of the Hud-

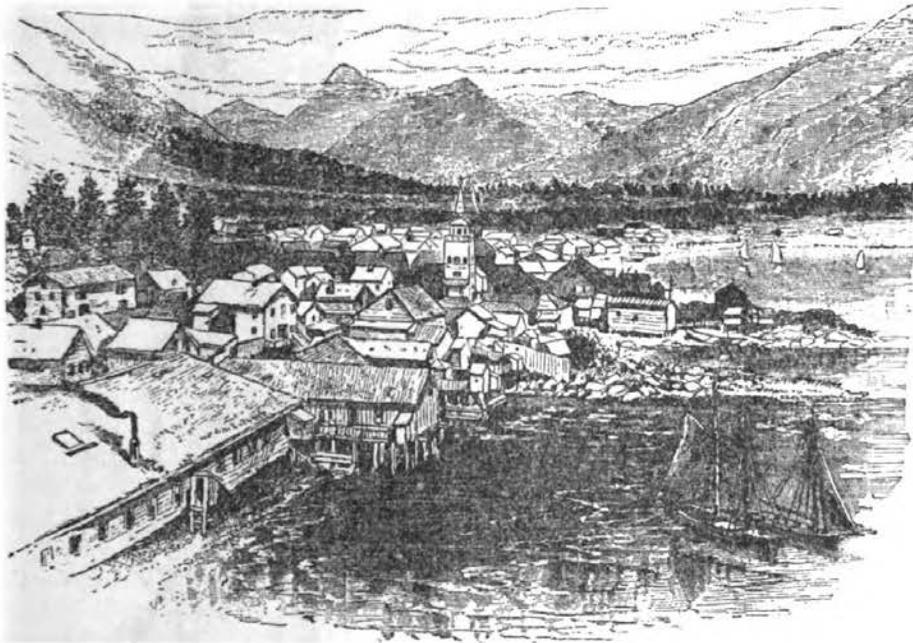


Fig. 1.—THE TOWN OF SITKA.

ogy of the south-eastern coast of the Territory, show that a high isothermal line exists there, species being common at the Aleutian Islands which are found in the Atlantic, only at a point much lower down. The temperature of the sea at Sitka in the latter part of July, according to observations made, was 52°, while the air was at 54°. The mean temperature at Sitka in latitude 57° 3', derived from twelve observations, is 4° 9'. There are usually six months of good mild weather, from March to September the thermometer rising in summer as high as 95°. Even as far north as 60° of latitude good

son's Bay Company, which is near the boundary line between Alaska and British America. An old Russian fur post lies at the junction of the Tanana with the Yukon, 240 miles below the Hudson's Bay Company's station. As high up as 67° north latitude, the country is inhabited by tribes of Indians, who have been generally found to be of peaceable disposition, and willing to form relations for trade or otherwise with white men.

Minerals have been discovered already in paying quantities on the coast and along the Yukon. Copper, iron, gold, silver, and, in Cook's Inlet and two or

three other places, anthracite coal of good quality have been revealed. For a few years past the gold mines have drawn many prospectors and operators from California, and towns have sprung up at

"Petroleum has been found near Katmay Bay, in latitude 50° , abreast of Kadiak Island. Three streams met with in this locality appear covered with petroleum. Specimens of pure copper have



FIG. 2.—A MINING SETTLEMENT ON THE COAST.

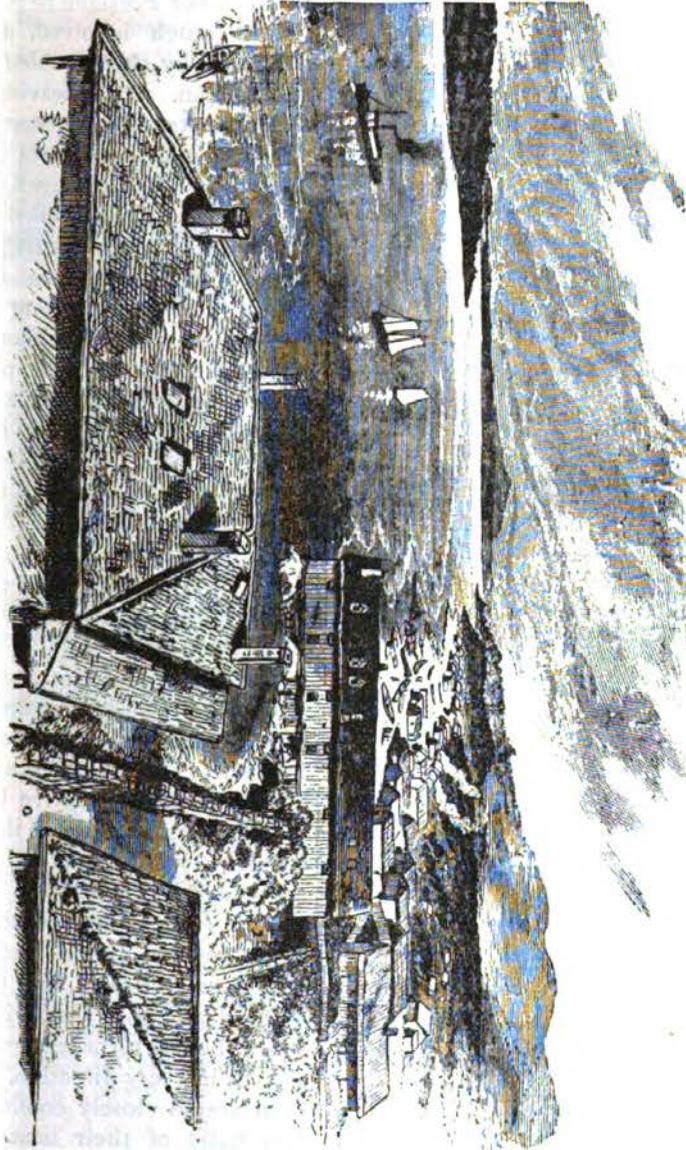
points like Wrangel and Harrisburg. In the Yukon and other rivers there appears to be an inexhaustible supply of salmon, while among the islands cod, sturgeon, and other fish abound. Mr. W. D. Patterson, who has visited the Territory for scientific observation, stated that:

been found on the Copper River, about twenty miles above its mouth. Masses of a cubic foot in size have been got here, and the Indians hammer out copper implements from it. Very fine marble has been found close to Sitka. Sulphur is found pure on many of the Aleutian

Islands, which are all volcanic. A large, rocky island in this chain, known by the Russians as the Bojoslav volcano, rose from the sea in 1796. The spot where the St. Michael fort now stands has been

distinct tribes—the Koloshes, Chilkhats, Aleuts, and Malmelutes. The extensive sheet of water north of the Aleutian Islands is called Behring Sea, of great evenness of submarine surface at a very

Fig. 3—A FISHING SETTLEMENT ON THE YUKON.



covered by the sea within the memory of Indians. In fact, I have noticed in my travels along the coast, that the whole of the north coast of Cape Flattery, northward, has been suddenly elevated. Hot springs have been found at Sitka. The Indians of the coast are divided into four

small depth. This sea teems with fish. It is marked by several large islands, upon one of which, St. Paul, the fur-seal fisheries are carried on. The Alaska Commercial Company are allowed to kill 100,000 each year of young males, for which privilege they pay the United States Gov-

ernment \$2.50 for each skin. The Shumagin Islands, on the south-east coast of Unalaska peninsula, are famed for the great cod banks in the vicinity. These banks have furnished much of the fish taken to San Francisco. The prevailing

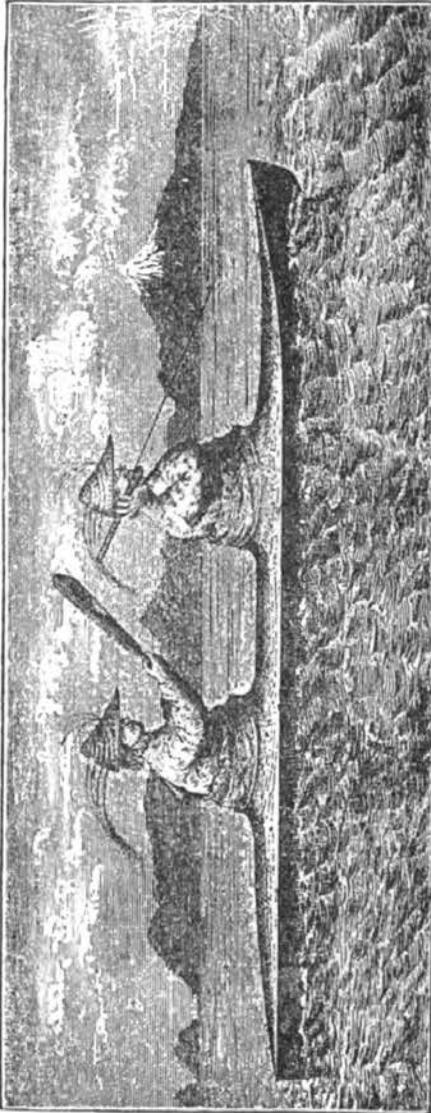


FIG. 4.—OTTER HUNTING BY THE ALASKAN ISLANDERS.

forest tree is spruce, growing to the height of 180 feet, and four feet thick at the butt. Hemlock, alder, and willow are found, but the most valuable wood of the country is the yellow cedar, with a fine, even texture, good size, and great strength."

On the Aleutian Islands, however,

there are no trees; those on Kadiak Island are small, but provide the supply for the Aleutians.

The islands are very numerous off the north-west coast of our continent, so that the course of a steamer from San Francisco or Portland to points in Alaska is very much involved, although little disturbed by the troubled water of the open ocean. After leaving Port Townsend, the traveller is borne through an almost limitless sweep of island-studded sea, and even if his taste for the beautiful be at zero, he is likely to be stirred somewhat by the ceaseless variety of coast exhibited by the islands as he winds in and out among them. Fig. 5 furnishes a view of an island group which is far from unusual. The particular point is where steamers make a landing. Fig. 3 is a fishing settlement on the Yukon; in this we have a suggestion of the grand extent of that river. Sitka has grown rapidly since 1867, and combines many important features of commercial enterprise. The mountainous character of the surrounding country is well shown in the illustration (Fig. 1).

The pursuit of the seal for its fur is one of the most important of Alaskan industries, but Scammon regards it even inferior to that of the sea otter, which is carried on by the native islanders. The otter hunters, dressed in their water-proof garments, made from the intestines of the seals, wedge themselves into their *baidarkas* (which are constructed with a light, wooden frame, and covered with walrus or seal-skin), and plunge through the surf, and, with almost instinctive skill, reach the less turbulent ground-swell that heaves in every direction. These aquatic men are so closely confined by the narrow build of their boats, and keeping motion with them, too, that their appearance suggests the idea that some undescribed marine monster had just emerged from the depths below. Once clear of the rocks, however, the hunters watch diligently for the otters. The first man that gets near one strikes with his spear, then throws up his paddles by way

of signal, at which the other boats form around him at some distance. The wounded animal dives deeply, but soon returns to the surface near some one of the *baidarkas* forming the circle. Again, the hunter that is near enough, hurls his spear and elevates his paddle, and again the ring is formed as before. In this way the chase is continued until the cap-

from the Kurile Islands; and, valuing each skin at \$50 (a higher rate than that placed on the seal), amounts to the sum of \$250,000.

The Aleuts are the best type of the native tribes of the Alaskan Territory; they resemble the North American Indians in color and other respects, but are regarded by some ethnologists as more

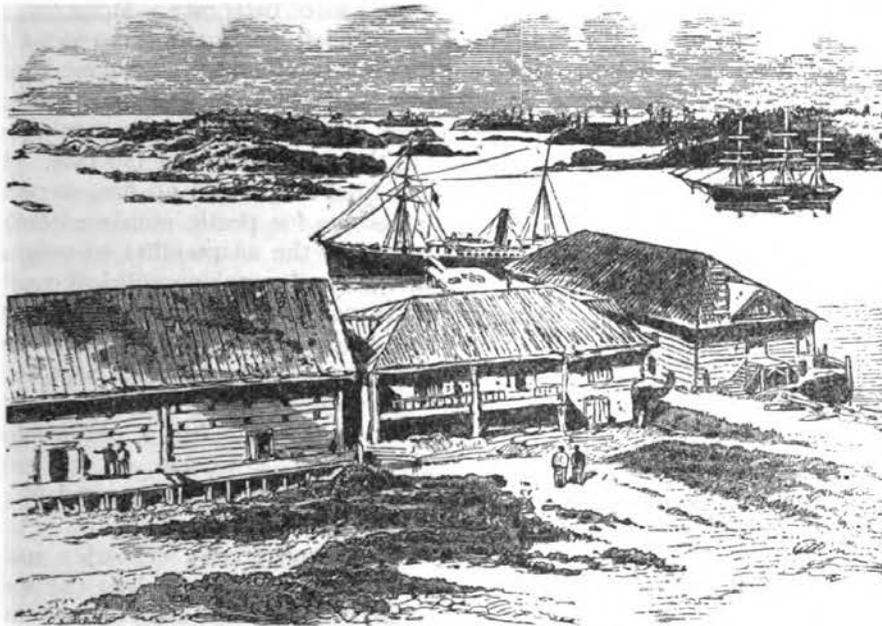


Fig. 5.—SAILING AMONG THE COAST ISLANDS.

ture is made. As soon as the animal is brought on shore, the two oldest hunters examine it, and the one whose spear is found nearest its head is entitled to the prize.

The number of sea-otter skins taken annually is not definitely known, but from the most authentic information we can obtain, the aggregate for the past three years has been 5,000, 1,000 of which came

closely related to the Asiatic Mongolian. They are characterized by much activity and industry, and for the most part show a pacific disposition in their relations with the white settler. Russian dominance has produced its effect in subduing the stronger elements of the savage in them, but there are occasional examples of noteworthy intelligence reported by travellers among them. D.

THE POETESS OF ANCIENT GREECE.

SAPPHO.

PROBABLY there has been no age of the world when woman did not exercise a commanding influence. We know of none at least in which representatives of the sex have not either by dazzling beauty,

passionate devotion, august abilities, or splendid sovereignty triumphed over usage or conservatism and won for themselves reverence and fame. The stage of history is illumined by a constant suc-

cession of feminine characters whose glory is not surpassed by that of their masculine rivals. Brilliant gleams shine here and there along the stream of time, marking the epoch of some gifted woman. Through the mist and the gloom, the ignorance and the crime of the centuries, we catch ever and anon the glimpse of fair heads crowned—this one with the laurel of Apollo, that one with the diadem of sovereignty; now with the olive of Minerva, and then with the aureole of the saint. The line has no beginning, even as it will have no ending. In old Egypt, as long ago as when the Pyramids were young, queenly heroines vied with



SAPPHO.

the Rameses and the Thothmes in the claims to greatness. Ever since then the brightest gleams of light centre about some woman as the principal figure of her epoch. In King Solomon's time it was the Queen of Sheba; in the early days of the Christian Church, a Monica or a Hypatia; in the feudal ages, an Elizabeth of Hungary, a Heloise, and a Joan of Arc.

Take away what we owe to woman, and history would be dreary and dull enough. It is her grace, her beauty, her songs, and her love that have humanized and civilized the world. Doubtless woman has often been depressed; she has not all her rights to-day, but there has never been a period which she has not marked with her own individuality. The Teu-

tonic races were not the first to discover the capabilities of the gentler sex; the nineteenth century is not the only one that stands ornamented with woman's grace, woman's beauty, woman's genius, and woman's royalty.

Sappho, Artemisia, and Aspasia are representative Greek women. And they are not only the representative women of their age, but they are the best representatives of their race. Moreover, each represented one of the three great families into which the Hellenic race was divided. Sappho belonged to the *Ætolian gens*; she had the fire, the poetical genius, the sensuousness of her race. Artemisia was a Dorian; no fire, no passion, no genius for poetic numbers here; but there was the adaptability to command, the genius for making political combinations, courage, enterprise, and cunning. The quick Ionian blood of Aspasia could have made her a poet like Sappho, or a warrior-queen like Artemisia; but circumstances made her a philosopher, a grammarian, a woman of wit and of learning. They were separated by centuries as well as by race.

Three consecutive centuries marked their epochs, and each was the woman of her century. The sixth century before the Christian era was the age of lyric poetry. No sweeter singer than Sappho ever touched the lyre. The fifth century was an age of warlike conquests and political combinations. Artemisia was a Zenobia and a Maria Theresa combined. The fourth century saw the culmination of Grecian art, philosophy, and literature. In that august galaxy around the Parthenon and the Agora there is no prouder figure than Aspasia's. So much for generals—let us now go into particulars.

The sixth century before Christ dawned first in history, and Sappho, its heroine, precedes, chronologically at least, the other two of the illustrious trio. She was born at Mitylene in the island of Lesbos, somewhere in the vicinity of the year 610 B.C. Her father's name appears to have been Scamandronymus. He died when she was six years old. Athe-

næus tells us that she had three brothers, whose names were Charaxus, Larichus, and Eurigius. Larichus grew up a young man of beautiful person, and was frequently commended by his talented sister for officiating as cup-bearer in the public council-hall of Mitylene—a position that was eligible only to the handsomest youths. Of Charaxus the charming Herodotus tells a tale. He was an exporter of wine to Nancratis in Egypt, and in one of his voyages to that place he saw and became enamored of the courtesan Rhodope, the most celebrated beauty of her time. Rhodope was the slave of the rich Samian Xanthus, and Charaxus was so smitten, that he impoverished himself to purchase her freedom. His generosity does not seem to have been sufficiently appreciated, and soon after he abandoned the ungrateful beauty and returned to Mitylene, where the historian says "Sappho giped him very much in an ode."

Sappho was married quite early in life to Cercolas, a native of the island of Anthos, by whom she had a daughter named Cleis. Cercolas died in the course of two or three years, and his young widow returned to Mitylene with her child, which she speaks of as being remarkably beautiful. Sappho herself was also beautiful—of this there is scarcely a doubt. Her portrait on the coins of Mitylene is that of a tall, stately woman, with a face of exquisite beauty. On a Girgentian vase of the fifth century B.C. she is represented with Alcæus, and there she is made taller than her male companion and exceedingly beautiful. Alcæus, who was her contemporary and perhaps her lover, addressed her in one of his songs as "the dark-haired, spotless, sweetly-smiling Sappho." Plato, Plutarch, and Athenæus all term her "The Beautiful"; an expression which some, without sufficient reason, I think, have taken to refer to her poetical merits and not her person. She is said in particular to have had eyes of great brilliancy.

The age in which Sappho lived was one of intellectual activity. It was the era of

the wise men—of Solon, of Pittacus, and of Thales. Especially was she fortunate in the place of her birth. Lesbos was the most eligible as to scenery, climate, and situation of all the Greek islands. It was the home of several of the most eminent men of that day. Mitylene was one of the principal seats of Grecian intelligence and refinement. Poetry and music and philosophy appear to have flourished here at an earlier date than anywhere else in the Hellenic world. Arion and Terpander had already won their well-earned laurels in the field of lyric poetry, and Alcæus was awakening his muse to follow in a nobler flight; while revered through all Asia and Greece was the wisdom of the sage Pittacus, her countryman, whose famous maxim, "Know occasion," attests his practical ability as well as his intelligence.

In this intellectual atmosphere Sappho had grown up. She seems to have been a poet from childhood, for she had already won a reputation at her husband's death. And she was something more than a poetess. She had a mind graced with the best culture and learning of the time. She loved knowledge, and she strove to educate her sex. Her address to an uneducated woman shows how dearly she prized knowledge. The thought of lying in the tomb forgotten—having never scented the roses of Pieria, and walking undistinguished among the ghosts of Hades—spurred Sappho on to fame. No other woman of her age ever thought of such an inspiration, but Sappho's example was not lost.

She seems to have dabbled a little in politics also, though I think this was something foreign to her tastes. She was doubtless drawn into the political arena through the influence of Alcæus, her admirer, who was a warm partisan of the aristocratic party. But Mitylene just then preferred a monarchy to an oligarchy. Pittacus was made dictator and the nobles were exiled. Alcæus and Sappho too left the island, the latter living for a time in Sicily. After Pittacus

resigned his dictatorship, Sappho returned to Mitylene, where the remainder of her life was passed.

In her latter years she opened a school for girls—an unprecedented thing among the Greeks. But the Lesbian women always had the reputation of doing as they pleased, and Sappho's scheme does not appear to have been opposed. She gathered around her a female literary society as brilliant as ever centered around a modern blue-stocking, and several of her pupils were distinguished for their genius. Among them was Erinna, who, though she died at the age of nineteen, left beautiful and touching productions for posterity.

Sappho was the author of nine books of odes, besides epigrams, elegies, and epithalamiums, all of which were extant as late as the time of Horace. But only two of her lyrics have come down to us, and these not entire. One of them is her celebrated "Hymn to Venus," and the other is an "Ode to a Young Lady," probably one of her pupils. She was a singer and a lyrist as well as a poet, and is said to have invented the meter which bears her name.

By the comic poets Sappho was most unjustly traduced. They speak of her as being short in stature and swarthy in complexion, which, if facts, would have deprived her of any claim to beauty in a Greek's eye. They depict her as licentious, and parade her lovers as though she was a courtesan. But what are we to believe when they represent her as loving a poet who died before she was born, and two poets who were born after she died? If a single statement is false, why believe the others when contradicted by the face of history? The story of her having leaped into the sea from the Leucadian cliff for love of Phaon is evidently a creation of the Greek poet Menander. None of her contemporaries seem to have been aware of such an occurrence, and we may be sure that a story of that sort, if it had been known, or if it had been credited, would not have escaped notice by the gossipy Herodotus. If such an event

happened, it must have occurred for apparent reasons when Sappho was well advanced in years, and the idea of a woman of fifty or sixty of Sappho's intellect committing such a mad prank is in itself preposterous. The villainous story originated undoubtedly from the fact that there was a later Sappho who did take the lover's leap.

Yet we are by no means anxious to suppose that the gifted poetess was a prude. The extant fragments of her poetry show on the contrary that she had the warm blood of a southern girl. She has no concealments. She knows what love is, and she tells in verses that are vibrant with emotion, that are tremulous with passion. Sappho was a Greek, and she was an Ætolian Greek—the race that produced a Cleonice and a Myrrha. Born under the sunny, voluptuous skies of an Asiatic isle, lapped amid the warm breezes of the Ægean, Sappho was essentially sensuous and luxurious. She lived, too, in an age when it was believed woman's sole destiny to love. But Sappho was no Lais, no Messalina. A sensualist she was, but at the same time a sensualist the most refined, the most elegant, the most gifted that ever breathed the air of a southern clime. She gave to the most ardent of human passions the most delicate coloring of female sentiment. Of all that Greece has bequeathed us, nothing is so perfect in its concentration of real feeling as those few fragments of the Lesbian singer. Chaste she doubtless was, but she was no less a voluptuary, for only a voluptuary would have chosen her themes, and only a person of experience could have described so eloquently, so pathetically, so subtly and yet so simply, the effect of love upon one who loves. Allow that she loved Alcæus, what of it? Her genius, her sweet songs would excuse actions much more reprehensible. Sappho was a woman—we believe not a very bad, and perhaps not so good a woman as she might have been—but certainly a supremely gifted woman.

Her position, in fact, is altogether unique. The many and extraordinary

honors that were paid her in her own and after-times offer satisfactory evidence of the greatness of her gifts, even if her own poems do not bear testimony to the fact. She seems to have been regarded as a sort of female Homer by all the Greek and Roman writers, and she is the only woman in all antiquity whose productions by universal consent were allowed the same rank with the greatest poets of the other sex. In all history, too, hers is the only instance of a great poet whose fame was equally commanding in her lifetime and after her death. Her fellow-townsmen Alcæus praised her genius. Solon, another of her illustrious contemporaries, when he heard for the first time the recital of one of her poems, prayed that he might not see death until he had committed it to memory. Her fellow-citizens honored her by stamping her image upon their coins. After death they erected statues to her, and, according to Aristotle, even paid her divine honors. Herodotus, Plutarch, and Longinus speak of her in terms of unqualified praise. Plato in an extant epigram calls her the "Tenth Muse." Strabo considered her "a kind of miracle," and says that in poetic genius no woman was ever known to approach her. Dionysius of Halicarnassus cites her "Hymn to Venus" as an illustration of the highest principles of composition. Demetrius Phalerus terms her "The Divine." To-day the Greeks of her native island regard her fame as its brightest ornament, and her poetry, her loves, and her adventures are favorite subjects of their songs and traditions.

When Sappho died no chronicle has told us. The last trustworthy record of her is by Herodotus, who makes her satirize her brother regarding his unfortunate connection with Rhodope. This could not have been earlier than the year 565 B.C. She could not have been less than forty-five years old at that time. If she lived to the ordinary age arrived at by women she might have heard of the birth of Artemisia, the second of our famous trio. The aged poetess and the infant princess lived not so far apart, and the

Carian kingdom was an object of interest at that time to all the surrounding Greeks.

FRED. MYRON COLBY.

THE ORIGIN OF MAN.—The new magazine published by the Messrs. Longman of London, had in its first number an article by Professor Owen in answer to certain statements published elsewhere by prominent evolutionists, that man was derived from some man-like animal developed from the anthropoid apes, and living about the mid-Miocene Period; a creature that was partly frugivorous, partly carnivorous—a tall and hairy creature more or less erect, but with slouching gait, black-faced and whiskered, with prominent prognathous muzzle and large pointed canine teeth, those of each jaw fitting into an interspace in the opposite row; the forehead low and retreating, with bony bosses underlying the shaggy eyebrows; his brain about half way between that of the anthropoid apes and that of the Neanderthal skull. Then came the Pleistocene Period, and with it the age of the cavemen, who presented some similarity to the existing Eskimo, but with lower foreheads, with high bosses like the Neanderthal skull, and big canine teeth, like the Naulette jaw. Professor Owen observes that the human jaws of this supposed period which he has examined give no evidence of a canine tooth of a size indicative of one in the upper jaw necessitating such vacancy in the lower series of teeth as the apes present. He refers to the skulls he himself obtained from the cavern at Bruniquel, and now in the Museum of Natural History, which show neither lower foreheads nor higher bosses than do the existing races of mankind, and claims that, so far as his experience has reached, there is no skull displaying the characters of a quadrumanous species, as that series descends from the gorilla and chimpanzee to the baboon, which exhibits differences, osteal or dental, on which specific and generic distinctions are founded, so great, so marked as are to be seen in the comparison of the highest ape with the lowest man.

SCIENCE A LITTLE MIXED.

IN a recent edition of his work on "Insanity in its Medical Relations," Dr. W. H. Hammond has added a large number of pages of new matter, and thoroughly revised the old. The attractive manner which the author has of expressing his ideas gives to this book a charm that is supposed to pertain chiefly to works dealing with things of romance, or subjects less dry than the purely scientific; and were his matter equal to his manner, the services rendered the profession for which he writes would be great and of an enduring kind. It must be understood, however, that the subject Dr. Hammond treats of is one of the most complicated in the realm of science; and if the reader who is delighted by the style at last closes the volume with a sense of dissatisfaction with the results he has gleaned in the way of fact and information, he should remember the intricacy of the topics treated, and make what allowance he can for the errors into which the author has fallen. But there is a disposition on the part of Dr. Hammond to speak *ex cathedra* on points in mental function and mental disorder which are approached only with great modesty by the best authorities, and in this respect he renders himself the object of criticism, especially when it is found that his *dicta* are variant and even contradictory. Sometimes, too, he states things which are not warranted altogether by the facts of experimental physiology, and leads us to suspect that he has been hasty in his reading and over-confident in his generalization. We will make a few quotations here and there from his work, thus letting the author speak for himself, and then append some remarks which shall appear requisite to a proper understanding of the text.

P. 137. "Instinct is that innate faculty which organic beings possess, by which they are enabled, or impelled, to perform certain volitional acts, without being prompted thereto by the perceptions, the intellect, or the emotions, and even in

direct opposition thereto, which acts are preservative of the well-being or life of the individual or of the species to which it belongs."

P. 143. "As to the essential nature of instinct, it is a fact as much as the mind is a fact. It differs in organic beings in degree and kind, as does the mind. It is implanted in all beings from their beginning, and is a necessary principle of their organization. But the greater the degree of mental development, the less prominent is the instinct, till, when we reach man, it is lower than in any other animal in which its manifestations have been studied."

P. 139. "It is assumed by some authors that the instinct is incapable of improvement. There is an ambiguity about this expression which is liable to lead to erroneous ideas. It is true that the instinct of any one individual being can not be improved. The only means by which such an attempt could possibly be made would be by the senses, and then reason, not instinct, would be developed. The one would take the place of the other. But the instances of the education of the instinct through a series of generations are common enough."

P. 142. "It is incorrect, also, to contend for the unerring character of instinct. Instances of its aberration are very common."

Speaking of the capon taught to set on eggs, Dr. Hammond says, "Here we might almost say that an instinct is created in place of the one abolished."

"In the placental animals lower than man, instinct prompts to the division of the umbilical cord with the teeth. In several species, as the pig and the dog, this impulse is occasionally perverted, and they eat their own young."

"In man the maternal instinct is liable to perversion, and the instinctive love of the mother for her offspring is sometimes turned to indifference and hatred."

P. 142. "In my definition of instinct, I have been careful to use the term 'or-

ganic beings' instead of animals. I did this because I am very sure that plants have instinct: that is, a force co-existing with their growth and implanted originally in the seed, which impels them to the performance of actions calculated to preserve their existence or secure their well-being. We see this power manifested in those plants which shoot out tendrils in search of support, in those which send their radicles deep into the earth in dry weather, and in those which open and close their flowers with the rising and setting of the sun. These last-named acts are not the consequence of any physical influence of the light or heat of the sun's rays, for they are performed when both are excluded."

P. 143. "So far as I can perceive, the instinct of plants differs in no essential respects from that of animals."

P. 143. With reference to the seat of instinct Dr. Hammond says, "It does not reside exclusively in the brain. The brain of many animals, especially of those belonging to the class of reptiles, can be removed without the animal suffering any very considerable immediate inconvenience. In such cases the instinct remains unimpaired."

P. 147. "It [instinct] is situated exclusively in the medulla oblongata, or in the spinal cord, or in both these organs. The observations made and the experiments cited under the immediately preceding head, apparently lead to the conclusion that the medulla oblongata, or spinal cord, or both these organs, may be the seat of instinct; and further inquiry shows that this view is as correct as that which associates the brain with the mind."

P. 150. "It is possible that the cerebrum, the cerebellum, and the pons varolii have some influence in strengthening the faculty. But this is not essential, and its exercise is not a mental operation."

P. 9. "The brain is the chief organ from which the force called the mind is evolved, and so far as the present treatise goes, may be regarded as the only one."

P. 15. "The mind, like some other

forces, is compound—that is, is made up of several sub-forces. These are: perception, intellect, emotions, and will. All the mental manifestations of which the brain is capable are embraced in one or more of these parts. Either one may be exercised independently of the other.

"By perception is to be understood that part of the mind whose office it is to place the individual in relation with external objects."

P. 17. "Perception is the starting-point of all ideation. An individual born without any of the special senses, or without the essential nervous structures for developing sensorial impressions into perceptions, would be unable to form the simplest possible idea of any object or subject. . . . The brain can originate nothing; ideas are not innate; they are derived entirely from without. . . . The sparks that light up the intellectual, emotional, and volitional fires come from the things around us, and though the mind of a Socrates might potentially exist in the cerebral cortex of a man without sight, hearing, touch, taste, or smell, it would never kindle into the faintest scintillation, though it endured for an eternity."

This is not true, for each mental organ has of itself innate power of activity, although it may be affected by, and react upon, the rest of the mental organs and the senses.

P. 21. "The region of the brain which is directly concerned with the elaboration of ideas is the cortex."

This is a voluntary statement, often repeated, but which lacks support. Each mental organ is composed of diverging and converging fibres, the former having their origin in the internal and the latter in the external gray matter of the brain.

P. 22. "An emotion is that pleasurable or painful feeling which arises in us in consequence of sensorial impressions or intellectual action."

An unintelligible definition. The following is phrenological:

"The emotions which are principally the subjects of derangement in cases of

insanity are anxiety, anger, fear, love, egotism, vanity, ambition, jealousy, avarice, superstition, fanaticism, and religious feeling."

P. 27. "The will is that mental force by which the emotions, the thoughts, and the actions all are controlled. The product of a force is called a volition."

P. 32. "While the will is certainly located in the brain, it is by no means certain that in some of the lower animals, at least, it is not also situated in the spinal cord. The acts which are witnessed in the frog after the head has been cut off, and with it, of course, the entire encephalon, are clearly volitional in character, being adapted to the end in view, and such as the animal would perform in its un mutilated state. But while the brain is the chief, if not the only, seat of the will in man, we have no data by which we are authorized to localize it in any particular part of this organ. Probably each motor and ideational centre is, at the same time, also volitional; but even this is merely an inference."

It is impossible to find for the will a special organ (see Gall and Spurzheim's large work, or Lewis' translation of Gall's Works, 6 vols.).

P. 33. "It is to be regretted that the present state of cerebral anatomy and physiology is such as to prevent our making any precise localizations of the several forces and faculties which go to make up the mind. I have only ventured to do that in a single instance—the optic thalamus as a centre for perception—and even that is questioned by several eminent investigators. The evidence, however, appears to me so explicit on this point that I do not see how it is to be questioned. Much has been done by the labors of Broca, Fritsch and Hitzig, Nothnagel, Meynert, Ferrier, and others in the direction of the localization of brain functions, but it has been almost entirely confined to the determination of the centres for speech and for motor impulses."

The pretended discoveries of cerebral centres, usually based on mutilation or

irritation, by Hitzig, Ferrier, etc., are no sooner asserted than denied and disproved either by the author himself or by others engaged in the same line of investigation.

"Gall, Spurzheim, Combe, and others made honest attempts to found the science of Phrenology, and if their localizations of the various faculties of the mind—perceptual, intellectual, emotional, and volitional—had been established, we should have as complete a knowledge of psychological typography as could be desired; but they built on insufficient data, and, as a consequence, Phrenology as a science does not exist at the present time."

P. 34. "We know also that the cortical substance of the brain is of far greater importance in the evolution of mind than any other portion of the nervous system, and that it is here that experimentation and other methods of investigation have their greatest prospect of obtaining positive results. It is certainly established that the brain is not a single organ, but consists of a congeries of organs with different functions."

Now it is very refreshing to know that men, animals, and vegetables all have instinct; that this instinct is a something which enables or impels both man and *vegetables* to perform volitional acts; that in the case also of both animals and *vegetables* it has its seat in the *medulla oblongata* or *spinal cord*; that this fact is as positively determined as that the brain is the organ of the mind; that the love of the mother for her offspring, the nature of the plant to throw out radicles into the earth, the impulse of the chicken to sit on eggs, of the pig sometimes to eat its young, of the duck to escape the gun, of the sunflower to face the sun, etc., are all one and the same thing, viz.: *instinct*, and have their seat in each instance in the same place; that is, in the *medulla oblongata* or *spinal cord*. Certainly this is a wonderful discovery, and Dr. Hammond ought to be proud of it.

It would seem, however, from another quotation that our author meant that we

should take this attempt to locate instinct in the medulla or cord only as a joke, for he says, speaking of cerebral localization, "I have only ventured to do that in a single instance—the optic thalamus as a centre for perception." We are justified perhaps in accepting it in seriousness, however, for in this latter quotation he speaks of *cerebral localization*. It will also probably be news to most readers to learn that the spinal cord and medulla oblongata each constitutes an organ.

One could hardly imagine how Dr. Hammond or any other person in his rational mind could fall into such a confusion of ideas and be led to present it to the world as science. It must be evident to all that his attempt to make of instinct a single faculty or quality and assign it to a single organ in the nervous system, is entirely without foundation; that he might with equal propriety state that all animal life consists of mind; that the mind has its seat somewhere in the nervous system, and rest content with the description of the animal world. Instinct is as various as organic life is complex; the more simple the plant or animal structure, the more simple, though perhaps varying in degree, is the instinct. One plant has an instinct to shoot out long radicles, another short ones; one to open its blossoms by day, another by night; one to grow in dry, and another in wet soil. The tiger has the instinct to eat flesh, the sheep to eat grass; the nightingale has the instinct to sing, while the brown sparrow has not. Man has an instinct which leads him to paint, or to write poetry, while the cat has not, etc., etc. These are self-evident facts; everybody has observed them, and can repeat the observations every day. Can all these instincts, tendencies, or faculties be set aside without further study or consideration than to say that they are instinct, and, with Hammond, to say that they have their seat in the medulla or cord? Such an attempt at science should not satisfy the mind of an intelligent youth.

In a like general way Dr. Hammond tries to resolve the mind into only four

different forces, which he styles perception, intellect, emotion, and will. This is simply a repetition of the old-time teachings of the transcendental metaphysicians; a school which has done much to bring mental science into disrepute and to hinder its progress. The beaver perceives the laws of construction, the horse does not; the frog can not perceive the relation of numbers. One man, again, has a strong perception of justice, and another has not; one recognizes the relations of locality, another does not; one those of friendship, another not. The fox marries, while the bull is promiscuous in his loves, as is also the cock, etc., etc. The emotions likewise differ in different species of animals, and in different individuals of the same species, as does also the intellect. The will is not a faculty with a special organ. The man who resolves to paint a landscape, and carries the resolution into effect; he who resolves to shoot his neighbor, and does so; he who befriends one in distress; he who loves and marries—each and all manifest a will, although that will differs as much as the faculties do in the activity of which the will is the expression.

To claim that perception can constitute a single faculty, would not receive the notice of modern metaphysicians; and it is equally abortive to attempt to locate it in the optic thalamus—a portion of the brain which gives rise to fibres, and through which fibres pass, going to various mental organs.

It is just as inconsistent on our author's part when he at present says that "it is certainly established that the brain is not a single organ, but consists of a congeries of organs with different functions"; for, in a paper read before the New York County Medical Society, January 4, 1869, entitled, "The Physiology and Pathology of the Cerebellum," he arrives at this conclusion regarding the function of this organ: "My opinion is that it has no special or exclusive function of any kind, but that it is simply an additional generator of nervous power—a ganglion to be

added to the cerebrum—and performing an analogous office in the economy." At that time, therefore, it would seem that he regarded the cerebrum and the cere-

bellum as one mass of nervous matter without any special function whatever, except that in some mysterious way they constituted a generator of nervous power.

R.

MEN OF IDEAS.

WHEN charged by a newspaper with being a man of "one idea," Wendell Phillips retorted by saying that he regarded himself exceptionally fortunate in being possessed of an idea. It is a fact, that full-orbed ideas are rare possessions. The man of whom it can be truthfully said, he has achieved the mastery or solution of a single problem of science or philosophy—and these terms embrace the entire region of fact and realm of thought—is a man at whose feet the race can afford to sit as students. Who among us by taking thought is prepared to assert that he has done so? What we term science is really but a vast book of hints and suggestions guiding the student in the direction of facts; so philosophy is but a record of the splendid efforts and brilliant failures of the intellectual giants of the race, to compass and give expression to full-orbed thought. How often do we take up a new book of science or philosophy, which promises in the introduction the solution of some great problem, and which is so ably and charmingly written, that we find it difficult to lay it down until *finis* is reached,—but which is disappointing in the end; not wholly, but in a measure disappointing. One feels compensated for the time consumed in reading, by the hints he got, but disappointed at being obliged to content himself with a few hints, when he had hoped for a complete revelation. If the reader is to be commiserated, how much more the author of such a book! The first simply turned away disappointed at the failure of another to solve a problem, which he, for want of energy, or sufficient inclination, had not attempted to solve for himself. The other lays down his worn, if not weary pen, and letting his aching head rest upon his open palm, cries out in an-

guish of spirit: "This is the abortive result of my brilliant conception and labor-ed effort. 'Tis infinitely below the ideal pattern I saw in the mount of inspiration, and which, when I began, I thought I should be able to copy to perfection."

Reader, if you have an idea which you have attempted to present to the world in book form, you understand this matter; you know how difficult, not to say impossible, it is to give verbal expression to that idea. It is only those who never had an idea, a genuine and full-grown idea, but who enjoy the luxury of ignorant blissfulness resulting from that fact, who are quite satisfied with their intellectual efforts.

It would seem at first thought a misfortune that the great thinkers can not give the world complete transcripts of their minds. But on reflection the wisdom of this and the compensation for it appears. Thought is of value only to the thinker. To develop the powers of thought one must exercise his mental muscle. If you could buy full-grown ideas at a book-store, they would be of little use to you, unless you had by mental effort acquired the habit of thinking for yourself. The author who suggests an idea in such a way as to compel you to go in search of it, is the author we advise you to read.

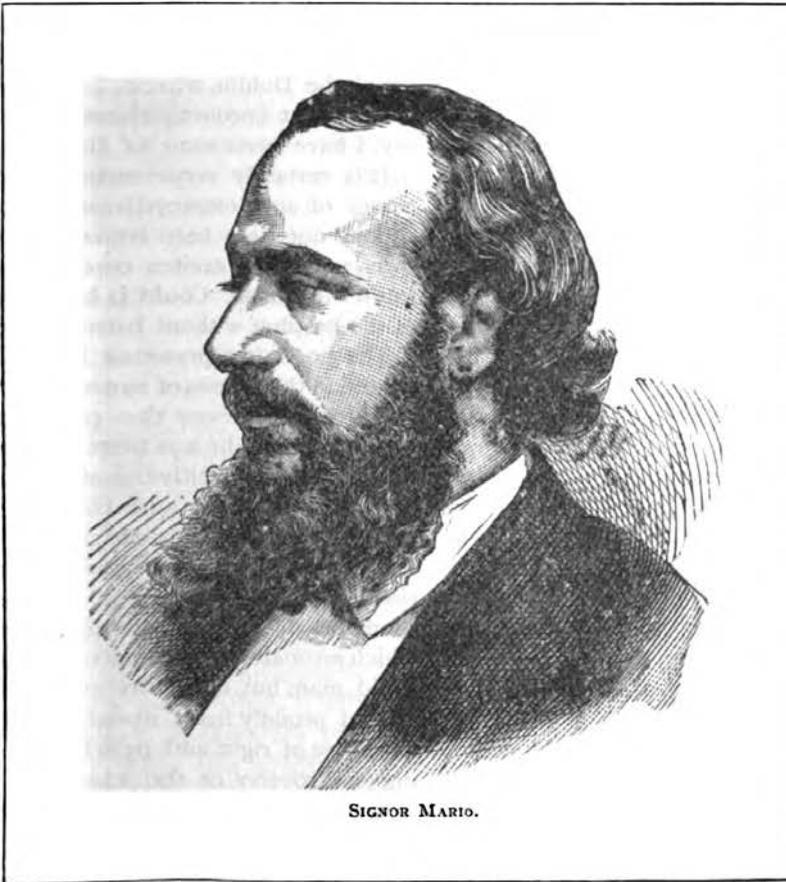
T. A. BLAND, M.D.

DON'T CRITICIZE.—Whatever you do, never set up for a critic. We don't mean a literary one—some people are obliged to earn a living that way—but in private life, in the domestic circle, in society. It will not do any one any good, and it will generally do you harm—if you mind being called disagreeable.

SIGNOR MARIO,
THE DISTINGUISHED SINGER.

ON the first day of this year the Marchese di Candia, more popularly known as Signor Mario, the once great singer, died in Rome, Italy. Thirty years ago he came to the United States in association with Grisi, also a singer of high reputation, and whom he married. Be-

His elegant person and manners, and an artistic sense which was born with him, aided the voice in winning reputation and money. He was not a hard student of musical scores, and could not tolerate the restrictions which mastery of musical technique imposes upon all alike, but his



SIGNOR MARIO.

fore he became known to the operatic world, this man was a young Italian noble of decayed fortune, but with a phenomenal voice, which was occasionally heard in the *salons* of fashionable Paris, and when necessity compelled him to scrutinize his personal capabilities to learn what he could do to earn a decent living, he discreetly concluded to sing.

manner, figure, and sweet vocal expression more than compensated, in the esteem of his audiences, for his want of exactness in the rendering of the score. As an English critic says: "On the stage Signor Mario was always 'a picture.' It mattered little or nothing what dress he wore; whether the simple and scanty attire of a Neapolitan fisherman, or the gorgeous

robes of a prophet-king—in any and every case he delighted the artistic eye, and impressed with a sense of beauty those who could hardly have explained why they were pleased. That all his gifts of person, manner, and instinct were just such as the public could most easily recognize and appreciate is a fact too obvious for demonstration." But time and experience helped to improve him as a musician, and he became the accomplished artist in personating characters that assimilated to his own type. In such as Raoul, Fernando, and Faust, he was unrivalled; the spirit of the lover aflame with passion, seemed to fully possess him in such performances, and singers and audience were charmed by the fulness of realization.

When age compelled his retirement from the stage he made Rome his final residence, and there filled an appointment as Conservator of a museum. The salary was moderate, but the position was not out of keeping with the respectability of the man, and till the final day it may be said that no man in the City of Eternal Memories was more sincerely esteemed by the populace than the Marchese of Candia. Ever courteous, kindly, and affable, he made all who came within the sphere of his influence his friends.

The reader may wish some particular items in the career of this once popular man, and perhaps we can not answer it better from the scanty data just at command, than by adding the Marchese's own modest sketch of himself in reply to a friend's request :

"I made my first appearance in Paris, December 1, 1838, in 'Robert le Diable,' at the Grand Opera. I sang there two years and a half, and played in the 'Compte Ory,' 'Le Drapier,' and other operas. In 1840, Aguado made me sing at the Italiens, where I appeared in 'L'Elisir d'Amore.' I really forget whether it was in 1839 or 1840 that I came out at Her Majesty's in 'Lucrezia Borgia,' with Giulia Grisi; but it was about that time. I was not considered a success, at any rate, and, in fact, my career did not begin un-

til 1842, when I sang in Dublin with Tamburini, Grisi, and Lablache, and with Benedict as conductor. After that I returned to Paris, and sang the 'Rubini Repertoire,' in which I was most fortunate. Since then my life has passed but too quickly away in going from Paris to London every season, and meeting always with the greatest kindness everywhere. In the winter of 1849 I went for the first time to Russia, and in 1854 to America. London and Paris, however, have been the two cities of which I shall always have the most pleasant recollections, unless it be Dublin, where I first received the greatest encouragement. Strange to say, I have never sung in Italy."

It is certainly very remarkable that a singer of such extraordinary capabilities should not have been heard often in his own land, and it excites one's curiosity to know the reason. Could it be the old story of the prophet without honor, etc.?

The portrait represents him as he appeared in the fulness of manhood's power, and clearly expresses the points of character for which he was best known, kindness, courtesy, sensitiveness, dignity. To associate coarseness and brusquerie with such a type of organization would be to falsify the canons of organic manifestation. Yet the face is not a weak one; there are lines on the forehead and nose which intimate that he was no subservient, timid man, but could on occasion stand up and proudly insist upon receiving his full share of right and privilege. Disliking controversy or the clash of unkind discussion, he nevertheless had firmness and courage enough to assert his opinion and defend it. His nature was lofty in its aspirations; approval gratified him and inspired effort for other and better successes than had been his, but he had dignity and steadiness enough to keep him from excess. He belonged specially to the artistic class, by temperament and by organization. Had he devoted himself to painting or sculpture he would, we think, beyond a doubt made a notable reputation, and left behind much more than the memory of a melodious voice.

A REVISED CLASSIFICATION.

FIGURE 1 is a design showing the threefold nature of man, physical, intellectual, and moral, also grouping the

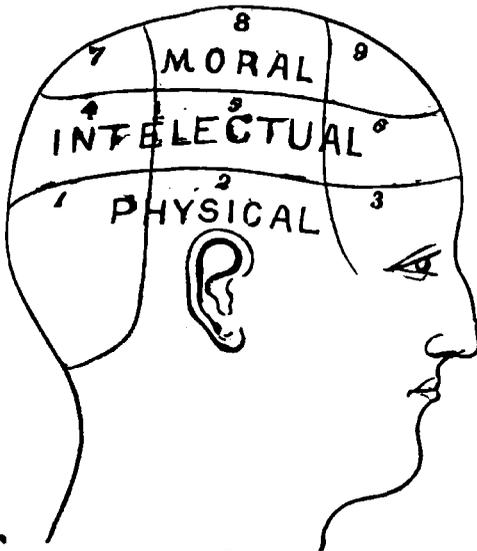


FIG. 1.

organs into family groups. That part of the brain which lies below the first horizontal line is the Physical Zone, corresponding to man's physical nature; that which lies between the first and second lines is the Intellectual Zone, corresponding to man intellectually; that which lies above the second line is the Moral Zone, corresponding to man as a moral being. It will be further observed there are two perpendicular lines that subdivide these three zones into nine sections or groups. No. 1 Organic, 2 Sustaining, 3 Perceptive, form the Physical Zone; No. 4 Social, 5 Perfective, 6 Reason, form the Intellectual Zone; No. 7 Selfish, 8 Devotion, and 9 Sympathy, form the Moral Zone.

The above-mentioned groups are divided into quite a number of smaller sections called organs. See Fig. 2, which is a design placing all the organs into nine groups, corresponding with the above division, thus:

I.—The organic group contains four organs.

- 1. Amativeness, or Sexual Love.
- 2. Philoprogenitiveness — Love for young.

A. Conjugality—the Pairing instinct.

6. Combativeness — Defence of one's self and family; this organ is double in its function. Its use as an organic or domestic organ is to defend and protect the young. It is used as a sustaining organ to protect self and property. "I will defend my rights to the last," is the heroic language of Combativeness.

II.—The Sustaining group, which contains eight organs.

E. Vitativeness, or Love of Life.

6. Combativeness, or Defence of self and family.

7. Destructiveness, or Executive energy.

10. Secretiveness, or Self-control—Policy.

8. Alimentiveness, or Desire for food.

9. Acquisitiveness, or Desire for gain.

F. Taste, or To discriminate in taste.

20. Constructiveness, or Inventive ability.

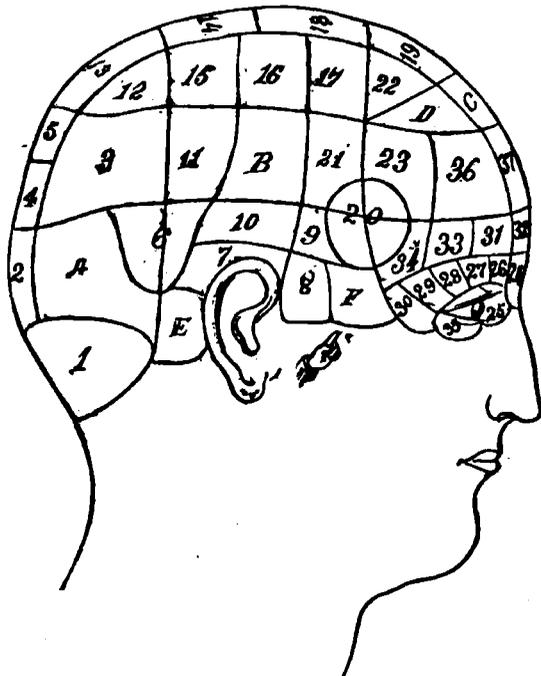


FIG. 2.

ty; this organ is fourfold in its nature; it plans for the sustaining organs, aids the perceptive, inspires the perfectives, and is the indisputable handmaid of Causality in all its new and valuable inventions.

III.—The Perceptive group contains the organs of—

24. Individuality, or Desire to see and know.

25. Form, or Perception of shape.

26. Size, or Ability to judge size, bulk, etc.

27. Weight, or Control of motion.

28. Color, or Power to tell color.

29. Order, or Method; System.

30. Calculation, or Ability to count.

31. Locality, or Memory of places.

32. Eventuality, or Memory of events.

33. Time, or Memory of dates; Time of day.

34. Tune, or Sense of sound; Love of music.

20. Constructiveness, or Inventive ability.

IV.—The Social group contains these organs—

4. Inhabitiveness, or Love of home and country.

3. Adhesiveness, or Love of friends.

5. Continuity, or Unity of thought.

V.—The Perfective group contains four organs.

11. Cautiousness, or Watchfulness; Prudence.

B. Sublimity, or Love of the grand.

21. Ideality, or Refinement; Love of poetry.

20. Constructiveness, or Mechanical ability.

VI.—The Reasoning group contains three organs.

37. Comparison, or Inductive reasoning.

36. Causality, or Ability to reason and comprehend the why and wherefore.

23. Mirthfulness, or Humor; Wit; Fun.

VII.—The Selfish group contains two organs.

13. Self-esteem, or Pride and Self-respect.

12. Approbativeness, or Love of praise.

VIII.—The Devotional group contains five organs.

14. Firmness, or Stability; Decision of character.

18. Veneration, or Reverence; Worship, Love of God.

15. Conscientiousness, or Sense of duty and justice.

16. Hope, or Anticipation of future good.

17. Spirituality, or Perception of the spiritual.

IX.—The Sympathetic group contains four organs.

19. Benevolence, or Sympathy; Charity.

D. Agreeableness, or Pleasantness; Blandness.

22. Imitation, or Ability to copy; Personate.

C. Human Nature, or Discernment of character; Ability to read at a glance in the countenance and manners of a person his peculiar characteristics.

JOHN A. HURLEY.

THE SOCIAL IDEAL.

THOUGH wealth and position seem to be the chief things sought in life, yet they are usually desired as a means to an end, and the chief ambition of most seekers is a certain "social ideal," a place in the thoughts and honors of mankind. Almost every millionaire is more delighted and flattered by the attentions of authors and artists, scholars or poets, than by any other homage their wealth may bring.

It is universally understood that fine manners and æsthetic culture are passports to the highest society, and ensure for their possessor the highest social privileges. Many a poet, scholar, or artist moves in a circle and commands attentions from the highest, which wealth simply could never reach.

Fine manners have been described as a fine-art and as a religion. By fine man-

ners we do not mean simply the art of bowing gracefully, of receiving benefits cheerfully and sweetly, of conferring them nobly, or of passing through life in a generally smooth and complaisant way—though that is much. One may do all this well and yet have not attained the highest art of fine manners.

Back of all the personal graces which education and culture give, there must rest the foundation of a generous nature, and a desire to render the individual and the masses the highest kindness and good possible. Life here is a rough and stony pathway to the greater part of humanity, sufficiently set with briars and obstacles without any one carelessly or deliberately hedging it more completely by acts of unkindness, by coldness, or indifference, or cruelty.

We everywhere need more "sweetness and light," and every soul of us ought to be a light, if only a glow-worm spark sending a gleam into the great deeps and chasms that lie athwart our paths, and whence others may not be guided, unless we emit the light which it is in our power to radiate.

"Temples of the living God," as mortals have been called, should ever keep a light shining upon the altar of their lives. Each person is an influence to some one; each act of courtesy and love is a light in the temple to some soul. One day recently upon reaching a university class, somewhat tardy and quite tired, a gentle girl beside me took my book quietly, and opened to the lesson. Just a tiny taper of an act, yet how sweet! how imperishable! because kindness dictated it.

A gentleman was formerly defined as "one who, without any title of nobility, wears a coat of arms." A lady was the wife, sister, or daughter of a gentleman. But as knowledge, wealth, and refinement have increased and broader views are entertained of the nobility that soul and heart give, we have widened our requirements for the title of gentleman and the claims of ladyhood. The distinction is no longer one of class or caste; it depends wholly upon personal qualities, personal appearance, address, and culture. Neither

rank or wealth will win the heart-homage given freely to intellect and culture, combined with elegance of personal manners. And wealth, intellect, and education united do not give the title of gentleman or gentle-lady, unless there be superadded that supreme elegance of true, sincere, generous feeling for the comfort, welfare, and happiness of mankind.

Humble or high, poor or rich, rude or refined, ignorant or learned, the well-mannered man or woman treats each and all with the same high-bred justice, sweetness, and urbanity. The same fine manner radiates upon the family circle that is lavished abroad. The well-bred have no "company manners," or rather theirs are always company manners, always finely elegant and universally dispensed.

All mankind are seekers after happiness, and none should forget that this precious possession is found nowhere so frequently as in a well-ordered, genial family circle. Thrice happy and blessed they who have a happy home, whose atmosphere is love and whose light is the cheerful smiles of cheerful hearts.

The barriers of etiquette which some would destroy, every thoughtful woman will rather seek to preserve; they are defences which protect woman from the coarse, the evil, the wicked, and the adventurer. Yet these defences should be gracefully and sweetly maintained, yielding them in unusual and peculiar circumstances when to stand upon mere etiquette would be cruelty. We should remember that rare are the people who do not carry some heavy weight in life, and that it is easier to bear tens of pounds upon the shoulders than one in the heart.

Taking always for our guide that noble utterance, "Do unto others as ye would that they should do unto you," we can not go far wrong. There is another golden rule, the rule of "not too much" in anything and everything, which is an excellent guide: not too much effort to appear kind, amiable, or attentive—just sufficient to show the complaisant spirit ready to do or aid; never officious, yet showing readiness to render kindly service.

Undue or extravagant emotions of any

kind must be repressed in general society, especially broad smiles or laughter at others' misfortunes. Slandering remarks or stories that would tend to injure the reputation of another, a true gentleman or lady does not repeat in public, or in private, unless circumstances render it necessary. These are weights upon the hearts and lives of those who are the victims of idle, malicious, jealous, and wicked tongues. "But whatever things are lovely and of good report, think on those things."

We must ever bear in mind that higher than all social graces or æsthetic culture, is the moral and religious nature. No training or attainments can ever outvalue aspirations after the highest truths that underlie and rise above everything of a merely temporal and evanescent nature.

Though man is a compound of animal instincts, social needs, and spiritual tendencies, we must always give to each element of the threefold nature its proper value and station in the development of a human being as a whole. The animal is the basis, the foundation: and the finer, higher the animal, the finer spirit would seem to belong to him. Yet this is not by any means universally true. Indeed perhaps the reverse is quite as frequent.

The social nature is the element that holds families, tribes, nations, societies together, and makes governments possible and civilization possible. It is the element that nourishes friendship, fosters love, promotes kindness in every relation of life. The social instinct builds homes for the family, clusters families into villages, enlarges villages to cities, and is the cement that binds all together into one form of mutual dependence and fraternity.

Social needs produce social forms which are tacitly agreed upon, and respected by all, as useful and necessary to promote kindly feeling and carry social intercourse along in a way convenient and agreeable. One who disregards social forms to any extent becomes a sort of social outlaw, and is called ignorant, ill-bred, or eccentric.

One who finds himself naturally indifferent to the welfare of others should judge himself, taking in some of the higher traits of humanity and should set himself diligently to cultivate an interest in the needs and wants of all; should teach his heart sympathy and brotherly love. Thus only will he be able to promote his highest mental development. For the three natures of man so intermingle, interinfluence, and interbalance that no one can reach its fullest growth without the aid of the others.

Few people understand how much the physical well-being depends upon the moral and mental. Most people are entirely unconscious of the unfavorable effect that ill-regulated affections and passions have upon health; and never think of attributing physical derangements to mental or moral causes, and have no idea that mental or moral derangement is frequently the direct result of physical causes. Many people think and reason of the threefold human nature as if each element were a distinct and separate entity, to be judged wholly by itself, by its own peculiar laws, allowing nothing for the influence of the other two elements upon its action. This partial view causes all their conclusions to be false and injurious. No one can judge correctly in mental philosophy unless he is well informed in moral and physical philosophy. Knowledge of each must enter into the judgment of any one of these elements in order that the judgment may have any weight or value.

The advanced education of to-day tends toward specialties. The school education to the doors of the university is quite broad enough; then the ways may be narrowed according to the option of the student, and he may throw his whole mental strength upon a single line of thought, just skimming other requirements. The post-graduate is at full liberty to become a complete specialist. And as he soon loses interest in everything outside his favorite themes, he becomes one-sided in his development.

And this seems unavoidable to any one

who wishes to make any special mark in life. For mental strength has bounds, and only by complete devotion to one subject can one become fit to approach the standard of modern requirements. And now as the sum of all the culture that the highest social ideal implies, we find that one should be cultivated physically to move gracefully and easily, and be in the enjoyment of the best possible health. Intellectually, cultivation should afford its possessor a broad ground of general knowledge and information, upon which to build pre-eminence in some science or art. Morally, the social ideal should be generous, just, truthful, chaste, kind, and high-minded in all respects; reverent toward man and nature and God. Thus may mortal raise himself to the greatest eminence possible—the development of his three-fold nature, which implies also the cultivation of æsthetics, the science of the beautiful in nature, and its transcription by art. AMELIE V. PETIT.

A DIVINE BANQUET.—The following very suggestive fable or allegory, is one

of the many "prose poems" of the great Russian author, Tourgenieff:

It once occurred to the Supreme Being to give a banquet in His azure halls.

All the virtues were invited to it—none but the virtues. . . . So there were no men—only women.

Many of these were assembled there, great and small. The smaller virtues were more agreeable than the great, but all seemed in good spirits, and conversed very politely with one another, as be-seemed such near relations and acquaintances.

Then the Supreme Being noticed two beautiful ladies who did not seem to know each other.

The Host took one lady by the hand and led her up to the other.

"Benevolence!" said He, pointing to the first.

"Gratitude!" added He, introducing the second to her.

Both sisters were much surprised to make each other's acquaintance.

For the first time since the creation of the world, and that was a great while ago, they now met face to face.

SOME GENERAL OBSERVATIONS ON AMATIVENESS.—No. 5.

I AM now stopping with Nathan Blood in a country village. The reader may suppose me here as a detective, a surveyor, or a teacher. Suppose teaching—and yet I may hold some relationship to the other callings. The family consists of Mr. and Mrs. Blood, and three children—John, Susan, and Laura. John is twelve years old, Susan nine, and Laura five. Mr. B. looks much as General Grant did when first made General, only he is a little taller, head a grain higher, especially in the region of Self-esteem. Mrs. B. is rather short, somewhat corpulent, quite dark, with mild, black eyes. They do not have any servant, but a widow Comstock comes in and helps when she is needed. Blood keeps the only store in the place, and is postmaster. He is often reticent in manner, but if a difficult question is opened, he may have a well-digested

opinion to express. He further has a wonderful, yet hidden power, at preserving order. Everybody likes him, even those who most need his regulating power. I sometimes hear a little muttering about him, but it amounts to nothing. To-day several fellows drove up to the store in an express wagon; they had evidently been drinking, and were acting very rudely. Immediately Mr. Blood stepped out of the store, went up to the vehicle, beckoned, as if he would have a little friendly parley with them; their heads were close together for a few moments, and then they went off, trying with all their might to appear sober.

Mrs. Blood has an evenly developed head, of a purely female type. She seems to regard Mr. B. as a remarkable being, and the children as more than ordinary, because he is their father. If ever I saw

a happy household, it is here. When he comes in, he always looks at his wife as if she had been away on a long journey, and, of course, he is very glad to see her. His wife acts as if her beau had come. The children would rather have him for a playmate, when they can get him, than any one else. He has a very efficient clerk (Jacob Darbey) in the store, who comes over to the house, it may be, several times in the day, between meals. There is no kind of housework he does not know how to do. The children have their well-apportioned tasks, and everything goes along smoothly. Laura, for instance, can go on short errands when needed, and after breakfast puts on a thick apron, then fills up the wood-box with wood from the shed. She is strong, and can bring in a number of sticks at once. Her father often smiles, and the parents exchange sly glances as the sturdy girl comes laboring in, breathing very emphatically. Sometimes it is hinted that she had better not bring quite so much at a time. The exhortation usually moderates the next armful, at least. The box heaping full, the apron is taken off and hung in its place. She is sometimes told she is quite a help—a proposition of which she has not a doubt, and of whose repetition she never tires.

The other day her father showed me the following item, which he was right glad to see in print :

“A primal defect in our social life is the notion that girls have nothing to do. Boys are brought up to some employment, but girls to none, except where pecuniary want compels them. The family that is ‘well-off’ has busy boys and idle girls. The young man, after eating his breakfast, starts out to his daily occupation, and returns at the close of the day. The young woman, after eating her breakfast (usually at a late hour), saunters about in quest of amusements. Novels, gossip, shopping (for unnecessary trifles), dressing in three or four different costumes, formal visiting, drawing (if able), and lounging, are the elements of the young woman's day. In the evening,

by way of recreation (!), she goes to the theatre or a ball.”

“Well, if that's the way it works to be ‘well-off,’ we prefer to remain poor.”

John Blood is a happy mixture of a fortunate marriage. I do not think Prof. Sizer himself could tell what temperament predominates especially. He is a little above average size, symmetrical, has marked but regular features, a set of perfect teeth, a deep blue eye, which looks like black in the evening. No teacher could say which study he excelled in—he was good in all. On skates or sled, in school or store, driving a horse or milking the cow, he ever seemed proper, natural, handy, happy. The food he should eat was the food he liked. When he should be in bed, he was already sleepy. When he had finished his sleep, he rose from his bed looking like a coin just from the mint.

Why am I writing in the past tense? He *is* already a companion for his father and mother. He kisses both sometimes, his mother the oftener. But many things in this family are not rigidly fixed. Mr. Blood does not always say grace at meals. Sometimes he invites me; again, it is omitted altogether. Usually there is reading and prayer Sunday morning; but more than half the time Mrs. Blood offers the prayer. He almost invariably, however, goes and shakes hands with her after the prayer and kisses her (beaming upon her with that fresh look), and the children imitate father; last of all, I shake hands with the dear woman, she half confused with her happiness and modesty. Mr. Blood loves to hear women pray, and I do also. Mrs. Blood's “effort” is not an essay or oration, but a prayer, full of gratitude, reverence, and direct supplication. Never shall I forget these Sunday mornings. Sometimes, I must confess, it is all the meeting I have for the day. Occasionally, some of the family are at home with me; but it is always represented at church, and those who go carry the excuse for those who stay. The pastor, Dr. Baldhead, is a reader of the JOURNAL, and a grand proof of the truth

of phrenological science. He was the means of introducing Mr. and Mrs. Blood to each other's acquaintance. He performed the marriage ceremony, and has christened their children. When one Joab Scudder and his unmarried sister attempted, through ignoble motives, to unsettle the Doctor and have a young Verygreen called in his place, Mr. Blood, in his peculiarly skilful way, nipped the movement in the bud.

Susan Blood is set out for a blonde, but is now too slim, and a little pale. The parents do not mean to have her hurried in her studies, and have had confidential chats with her teacher. They appear to like to have me notice and pet the rather shy girl—a thing I am not unwilling to do. My host has read and indorsed all I have written upon Amativeness, but says I have not told all. I agree with him; indeed I do. He tells me privately, that if Sue makes all the woman he wants to see, she will have to steal some magnetism from good and healthful gentlemen. Laura, like many girls, is already coquettish, and a natural thief. I had not been here two days before she had made my acquaintance, admired my beard, offered to kiss, and gone to sleep in my lap. She is inclined to monopolize her father and handsome brother, and the whole set of uncles on both sides. She has half stolen the heart of Luke Beaming, a precocious lad, living across the way. She is a wonder, and something of a mortification to Sue.

Mr. Blood has over his store a nice hall. I have suggested to him that he let John and Sue have the use of it on Saturdays, from 2 to 5 P.M., to invite their friends and mates. He could see it was properly warmed, and the parents, if they chose, could step in for a while. But the young people were not to be embarrassed. They could have an organ, sing, get up such romps, dances, games, and forfeits as they saw fit, or older ones could remember, and would, perhaps, occasionally take part in. He would be permitted to see how such opportunities, which, in some form, were once common in New

England, would add to the animation and health of the young, to the contentment and refinement of the boys, and to the beauty of the girls. He would see Sue come from the assembly with a light in her eye, a color on her lip, a glow on her cheek, such as he, a father and physiologist, would be delighted and encouraged to behold. But I warned him of what he might expect in other directions. In the first place, he would excite the astonishment of not a few. The prudish would hold up their hands, the over-busy might judge it a waste of time, and there would be contemptuous talk about kissing, saliva, etc. But he must persevere and defend the right. He would be called upon to "place" again the cautions of Mrs. Shepherd and other worthy parental writers. If one were travelling from Jerusalem to Jericho, they must be on guard against robbers. There was a place for all these cautions. But if one kept far away from the water, one could never have a bath or learn to swim. For some thirty years, some lines of prudery had been drawn tighter and tighter, during which time health had declined in girlhood, restfulness in boyhood, awful crimes had broken out with startling frequency, and men had been regaling themselves upon rum and tobacco. He favored my scheme, and we held a long conversation, agreeing in the following, not to mention all:

1. That certain writers, including myself, were correct in respect to the limitations of literal passion; at least, we had delineated the grand meridian of standard reckoning upon the chart of organic life.

2. But a generous Creator had designed that Amativeness, with other social propensities, should be a source of vitality, a fountain of ten thousand delights, the supreme resource of earthly happiness.

3. That in this very domain were arguments and influences against war, murder, cupidity, brutality, coarseness, selfishness, self-neglect, gambling, fraud, suicide, and almost every vice known in the world.

4. That God designed woman to be

healthful, cheerful, attractive, affectionate—Venus, Hebe, and Mary in one—the song of the whole earth.

5. That the poets, in singing of her beauty, graces, and love, had only voiced facts patent to all educated and developed to see and appreciate them.

6. That while men might subdue the earth, discover, invent, build, organize government, etc., woman must exercise her function, ornament, charm, and confer the *bonus* upon all.

At this point, all three of the children came in, and I had them stand in a row. I showed him that the sisters' heads extended further back of the ear than did John's. They had also more love of home and Concentrativeness than he. Laura had as much Amativeness, and Sue as much within half a degree. The girls, I added, when they passed out, were constructed to be queens of love and sovereigns of home. Let them and the boys so understand. In the hall, he would notice that the girls would be first to introduce the love-plays. Boys should have instruction to be respectful, responsive, orderly, helpful, ambitious to execute the game according to the inspiration of the girls.

If there be uncouth women, passionless women, snarlish and half developed, they are, I said, the reminders of our ignorance, folly, and sin. Women stunted in figure and plain in features, are great in soul sometimes, precious benefactors to the race. But you can never make such believe that their physical defects are of small account. They have inveterate common-sense about such matters. Their weakness is in the realm of causes. They do not see so well as men what will ruin health and beauty and extinguish natural love. We must supply this defect. It is our part. Good mothers may shame and scold amiable daughters, withhold light, let their girls grow up in need of the best food, without enough rest and sleep, burdened with studies, exhausted by dry and briery excitements. When together they talk of dresses, school standings, but do not consult and confer as to bodies, signs,

growth, stimuli, development of their daughter into the masculine ideal as they should. How precious their rewards when they do. Nor is there long delay.

I will close, perhaps, by copying for my readers two or three selections from my readings which I showed my noble friend, and which he took much pleasure in. Each occasioned a long talk. I began with this, simply because he had seen Mr. Parker. Witness the sister's secret influence :

"In the life of Theodore Parker a very beautiful incident one day occurred. It was before he was known to fame. He was only a teacher then, in Watertown, I think. He had among his scholars a little witch of a boy, whom no reproof and no persuasion could induce to keep himself in order.

"One day, after his more than usually troublesome conduct, Mr. Parker required the little fellow to stay after school to be whipped. So the time had come for this last resource of the exhausted patience and skill of the teacher. According to the directions the little fellow held out his hand for punishment, and as he took it, Mr. Parker said, he looked down into the little face, and the boy looked so much like his little sister, whose conduct was all right, and who had won Mr. Parker's love, he stayed the rod, and stooped down and kissed the innocent lips that were ready to break forth into crying, and sent the pupil home. Is it probable that he was a worse boy after that? Somebody knows who this boy was; if the man is living now, I wish we could learn from him the effect upon his life of that kiss of Mr. Parker's."

We are both fixed admirers of Mary Anderson, and I handed him this. She is both good and jolly :

"The scene-shifter in a Washington theatre tells a *Republican* writer some funny stories of actresses and their ways. Here is what he said of Mary Anderson : 'The public has formed a wrong impression of Mary Anderson. People think of her as a living iceberg. Nothing could be further from the truth. She is for all

the world like a big school-girl, chock full of animal spirits and overflowing with jollity. Why, I have seen her bound into the wings, and in the exuberance of her frolicsome disposition, jump on an acquaintance's back and make him carry her. Icebergs don't do that.' "

I wanted he should also see this about "How Girls are made Pretty":

"The Hindoo girls are graceful and exquisitely formed. From their earliest childhood they are accustomed to carry burdens on their heads. The water for family use is always brought by the girls in earthen jars carefully poised in this way. This exercise is said to strengthen the muscles of the back while the chest is thrown forward. No crooked backs are seen in Hindostan. Dr. Henry Spry, a medical officer, says that 'this exercise of carrying small vessels of water on the head might be advantageously introduced into our private families, and entirely supersede the present machinery of dumb-bells, back-boards, skipping-ropes, etc. The young lady ought to be taught to carry the jar as these Hindoo women do, 'without touching it with her hands.'

"The same practice of carrying water leads to precisely the same results in the south of Spain, and in the south of Italy as in India.

"A Neapolitan female peasant will carry on her head a vessel full of water to the very brim over a rough road and not spill a drop of it, and the acquisition of this art or knack gives her the same erect and elastic gait, and the same expanded chest and well-formed back and shoulders."

ADDENDA.

I once read an editorial expressing a sense of mystery that women could not reciprocate the male interest (?). What would Cleopatra have thought of such a puzzle? It might make the grave, the most excellent queen of England laugh, at least to herself. Endowed with speech, what class of male animals could come before the Creator with the complaint, Thou gavest the female, but she avoids

our companionship and never kindles at any period with native desire?

Take a male child, "nag" him, scare him, burden him, wear him with interminable particulars, point the finger of shame, say "nasty," as a battery of disgust; envelope the sphere of sex with awful, chilling, repulsive mystery; let the nature of this boy be clinging, confiding, plastic; if his shoulders should broaden a little, or his voice deepen, treat it with a shudder, as the venom of hatefulness; and might not manhood be reached in coldness and indifference, without romance or inclination, without temptation, conflict, or victory?

I stood beside a man, a minister, dyspeptic, thin almost to a shadow by conscientious labors, and he told me he could see his wife and children coming toward him and not experience any more fondness than if he were a post. But I did not infer that this deadness was the natural condition of masculinity.

Last evening I went out to witness a drama, presented by some amateur players of the neighborhood. Mostly, it was well rendered, some of it remarkably so. But where the man and woman would be expected to rush to each other's arms, not a foot was stirred. One of the actresses tells me she could not get her brother to kiss her where the play required it. Here I had a specimen, not of nature's way, but of the icy prudery and subtle sexual hypocrisy with which otherwise good people are partly blasted.

IMPERSONAL.

WEDDED LOVE.

AND if the husband or the wife
In home's strong life discovers
Such slight defaults as failed to meet
The blinded eyes of lovers:

Why need we care to ask? Who dreams
Without their thorns of roses?
Or wonders that the truest steel
The readiest spark discloses?

For still in mutual sufferance lies
The secret of true living;
Love scarce is love that never knows
The sweetness of forgiving.

JOHN G. WHITTIER.

DUNCAN'S MOTTO.

"I want you to be a man; and I'll have you a man or nothing."—DR. GRIMSHAW.

ONE of the worst things about boys and girls from seven to fourteen years of age, is a silly discomfort about dress. If they happen to find themselves a little out of fashion, or their clothes a little worn, however nicely mended, they will compare themselves at once with some over-dressed, foolishly decorated boy or girl, and grow quite uncomfortable, and even sheepish at the comparison.

Knowing this, I was at a loss for a moment what to do, when two boys, each about ten years old, presented themselves to me for instruction.

Charles was a delicate boy, with nice velvet and fine linen, pretty gaiters, and long blonde curls, altogether as if a little Vandyke had stepped out of a frame on the wall.

Duncan, on the contrary, was clad in what used to be called satinette, a kind of cotton and wool cloth, which readily showed the predominance of cotton at the knees and elbows. His thick, dark hair was cropped short, and not much linen graced either neck or wrist, while stout boots gave out no small amount of noise over the floor.

I looked at the two little fellows with some pleasure at the contrast they presented.

"Well, boys," I said, as I prepared their slates for a sum, "what do you expect to make in the world?"

I was quite startled at the promptitude with which the boy Duncan answered up—

"I expect to make a man, ma'am."

"Well and good, Duncan, that implies a great deal. And what do you expect to make, Charles?" (I did not say Charley, for I detest these pet abbreviations.)

The little fellow dropped his head at first and then lifted it up with a little smirk, and answered, "I expect to make a gentleman, ma'am."

"Well and good, Charles, that implies much also," I repeated.

"What else can he make with all that fine toggery on?" exclaimed Duncan, with a contemptuous toss of his head.

"Perhaps you would like some of the fine toggery yourself, Duncan?"

"Not by a jugful, na—ree."

"I shall not allow you to talk in that way, Duncan."

"He isn't a gentleman," retorted Charles.

"We'll talk about that some other time," I replied.

I soon found that my two little democrats were good material to work with, and I took pleasure in directing their tendencies into wholesome channels. Charles was the better scholar; but Duncan, rather apt to despise the technicalities of a lesson, seized upon ideas with a strong grasp, and laid away many a clear combination of fact or opinion to produce good inferences in the long run.

They had been nearly six months under my care, and I observed with pleasure a strong attachment was growing up between them, while each was modifying the character of the other. Duncan grew a little less savage in his assurance of making a man, and Charles became somewhat ashamed at his fineness and pretension.

They had their little squabbles and retorts, and more than once had a round of fisticuffs; but, on the whole, were boys not only of mettle but of genial good-fellowship. There was no trickiness or falsehood about either.

I am not writing a story, only telling how two young boys felt and talked who, in after-life, went together out to the great West and became useful and upright citizens, as every boy should aim to be.

One day the two boys came to me in an eager state of excitement; and Duncan, generally the speaker, propounded the following question:

"Madam, which of us two do you think has the best chance of rising and making something in the world—Charles or Duncan?"

"You, Duncan, mean to be a man, and Charles means to be a gentleman."

"No, ma'am, I give that up."

"Why so? When Napoleon Bonaparte was on that solitary rock of St. Helena, and a man brushed his shoulder carrying a heavy load, one of his attendants sharply reproved the workman; and do you remember what the fallen great man said?"

"He said, 'Respect the burden,' madam," said Charles, softly.

"That seems to me the words of a true gentleman. And when George Washington stole on tiptoe through the room where his young aides were making merry, though a wounded officer was in the next room, and Washington, without a word, passed in, was not this silent rebuke the act of a true gentleman, boys?"

"That it was!" cried Duncan, "and I will do my best to be such a gentleman."

Charles smiled timidly, and said:

"Duncan tells me, ma'am, that I stand no chance of being anything in the world, because, he says, I begin at the top of the ladder and can't rise."

"I am at the bottom, you see, and I mean to be at the top before I die."

"That is what you may do by hard work, and the aim to do what is worthy for a man to do, Duncan; but really I do not see why Charles may not become a most estimable man, and do, in his way, what you are able to do in yours, Duncan."

"Oh! what can a boy do in curls, and velvet, and fine linen? He can't stretch himself out any more than the girls can in their fixings. No, ma'am; Charles is too high up now, and likes to be where he is—amongst soft-spoken people. Look at his poor little hands; I should be ashamed to have mine so soft when there's work to do in the world."

"Duncan, you have much to learn, if you mean to be a man in the high sense."

"I know that, ma'am; but I have a verse I keep in mind when I see these

puny boys in their finery, and I so rough in mine," with a laugh.

Charles had quietly slipped out, and, to my amazement, the next morning appeared with hair clipped and quite roughly shod. Duncan was delighted, and all day lavished rough attentions upon him. He was at pains to help him in their games with the boys in the neighborhood. He grew more tender and gentle in his manner with his richer companion; and I more than once heard him shout at the top of his voice:

"Remember my verse; I call that a motto for a boy who means to be a man in the world."

After the ordinary recitations of the school-room, it was my habit to talk with the boys in a way that should bring out their natural bent, in the hope of turning it to the best. Accordingly, when they were seated by me, I said:

"Duncan, I have more than once heard you speak of your motto; won't you let me know what it is?"

"Yes, do," uttered Charles—"it is real good, and I mean to use it for mine, when I find myself feeling like a snob."

At this Duncan with much feeling replied, "I should like to tell the story that goes with it."

"By all means, Duncan; I should like to hear it."

"Well, there was a poet named Hannah F. Gould, and she wrote something sweet about the frost when she was washing up the floor one day. Everybody knew she was good and bright. Once a man brought to her a beautiful silver nest he had found on a tree in the woods. It was not far from where a great battle had once been fought. Some poor soldier had perished there, and a bird had taken the threads of his silver epaulet and woven them into its nest. It was a most perfect and lovely thing, and Miss Gould wrote some sweet lines upon it. You must read them; but, perhaps, people don't read such verses now. I have read them a great many times; and when I feel a bad feeling come up because I can not study as I wish to study, for I

have to work when school is over, I repeat my verse, and I am a better boy for it, and do not care for fine things and moneyed people that do not seem to know how a poor boy feels. This is it—she is talking about the little birds in the beautiful nest :

“ Do you suppose they ever rose
Of higher power possessed,
Because they knew they peeped and grew
Within a silver nest ? ”

ELIZABETH OAKES SMITH.

A QUERY.

SHOULD the heart-life be hidden from eyes that we meet,

No matter how kindly their glow ?

Should the smile or the sigh forever retreat,

Lest mortals our feelings should know ?

Must the face wear a mask when we welcome a friend ?

If the heart throws a glow on the cheek

Must the head with the coolest of courtesy bend,

Lest they deem us both foolish and weak ?

Must the eyes shine and sparkle when tear-drops would flow ?

Lips smile when the heart is so sore,

Lest the friend we have trusted should mock at our pain,

And leave us more sad than before ?

So be it ! henceforth let the cold mask be mine.

Alike let me greet friend and foe

With an eye and a smile that means nothing at all,

And for aye truth and pleasure forego.

L. A. I.

COSTUMES IN ATHENS.

A TRAVELLER in the East writes : “One of the great attractions of a stroll through modern Athens is to note the variety of costumes. The most curious and the most striking is the Albanian, which the Greeks have adopted as their national dress. It consists of a blue or black jacket, cut away, with open sleeves, and rich embroidery ; a red waistcoat, and a white embroidered shirt. The breeches are of blue, close fitting ; stockings of white or blue ; red gaiters, and red leather shoes without heels, pointed, upturned, and long. Round the waist is a leathern girdle, from which protrudes an alarming display of pistols and knives such as are affected by the Bedawin ; the head is covered with a high fez, or pointed red flannel cap, terminating with a long silk tassel, which sways about as the wearer walks. The principal part of the dress is the white ‘fustanella,’ a kilted shirt of linen, starched, and worn over the breeches. Sometimes as many as sixty yards of white linen are used in a ‘fustanella,’ and the effect is rather that of

a burlesque on a ballet-dancer’s costume. It is a curious sight for foreigners to see a Highland regiment march out, but it is a far more curious sight for an Englishman to see the Greek National corps parade in this feminine, but picturesque and extravagant, costume. The Greek artisan wears a costume not unlike the Turkish, consisting of a short dark jacket, red waistcoat, very wide calico trousers, worn short, and generally blue ; bare legs, and buckled shoes. This is also the dress of the Cretans, with the exception that instead of wearing shoes, they have high boots, which hide the bare legs and give a better appearance. Sometimes ladies may be seen wearing the national red cap, or the Thessalian head-dress—a tiara of gold and a veil thrown back—but as a rule they dress in Parisian style. The peasant women almost invariably wear the Albanian costume ; and very striking it is, consisting of a long embroidered petticoat, and a white woollen dress over it, while on their heads and necks are chains of coins.”



THE HEAD AN AID TO CONSTITUTIONAL DIAGNOSIS.

[Read before the Toronto Homœopathic Medical Association.]

SOME twenty-five years ago I was fortunate enough to make the acquaintance of a gentleman who for many years had been the leading phrenologist of England. He insisted upon it that certain formations of the head indicated certain constitutional peculiarities and that these indications might be serviceable to the practical physician. Most of you are aware, that ever since that celebrated Scotch metaphysician wrote his memorable treatise against Phrenology, it has been the custom of scientific men either to entirely ignore this very useful science, or to treat it with unmerited contempt. Many another useful discovery, of which our own system is a notable instance, has been treated in like manner, which only proves that great men are capable of making great blunders. That the size and form of the head is indicative of disease has long been recognized by medical men; but the phrenologist, to whom I have just referred, advanced a step further and discovered that certain regions of the head seemed to be, somehow, directly connected with certain regions of the body, such as the lungs, stomach, heart, and sexual system, indicating their constitutional or acquired condition.

By way of introducing the subject, I will divide the human head into three types, viz.:

1. The healthy type.

2. The scrofulous type.

3. The tuberculous type.

By the healthy type, I mean an evenly balanced head, having the proper height, width, and depth. It would take me longer than the allotted fifteen minutes, were I to give you the dimensions recognized by phrenologists and artists, and will merely call your attention to three lines which, in their direction, mark the difference between the three types.

In the *healthy or normal* type, if a line be carried down the temporal region, resting on the upper part of the head and the zygomatic arch, it will be found nearly perpendicular. In the *scrofulous* type, owing to a prominence of the zygomatic arch, frequently a sign of latent scrofula, the line will be found to diverge outwards; whereas, in the tuberculous type, owing to the prominence of the upper part of the head and the relatively deficient development of the zygomatic arch, the line will fall inward, forming the so-called "inverted pyramidal type." This is strongly indicative of a constitutional tendency to the formation of tubercle.

Time will not permit me to enter into the subject of scrofulosis and of tuberculosis, though intimately connected with my subject, and must therefore content myself with merely pointing out their cranial characteristics, although these different types are rarely met with in their

most perfect forms; still, it will be found that every head will fall more or less into one or the other; and moreover, just as the individual improves in health, so the diseased characteristics will disappear and his head will approach the healthy type.

I am not prepared to give you anatomical or physiological reasons for certain regions of the head denoting certain conditions in other organs; all I can say is, that they do denote such conditions, as may be easily verified, and those who are willing to accept of these indications will find them very useful in the treatment of acute and more particularly chronic diseases.

The region of the head that denotes the condition of the *lungs* is situated over the frontal sinus. On examination, you will find a very great difference in the appearance of this part of the head in different persons. In some you will find it full and prominent, and where this is the case, there will be a tendency to congestion of the lungs, with danger of hemorrhage. In youth, this may usually be guarded against by refraining from violent exertion; and as congestion of any organ, if properly controlled, has a tendency to increase the size of the organ, in a few years this natural tendency may result in a large and powerful chest. Where the frontal region is abnormally flat—that is, without either elevation or depression—the lungs will be found weak and predisposed to disease, and if this condition is connected with the “inverted pyramidal” or tuberculous type, there will be a strong predisposition to tubercular deposit in the lungs. In another class, you will notice a prominence of the eyebrows and a more or less deep indentation between them. The deeper this indentation the stronger the lungs, and when with this you find two deep perpendicular furrows, you have the strongest and healthiest condition of lung. Every physician has noticed cases of phthisis that seem to baffle all prognosis. There will be all the symptoms of galloping consumption, such as hæmoptysis, followed by purulent expectoration, hectic fever

and night-sweats, emaciation, etc., etc., and yet, after a time, will rally, the dangerous symptoms gradually disappearing till health seems restored. A year or two later, a fresh cold may produce a return of all the symptoms, to be again followed by comparative health, showing that there must be a large amount of recuperative latent power somewhere. Such cases you will find marked by a deep hollow between the eyebrows over the frontal sinus. This would seem to denote a certain recuperative power in the substance of the lung-tissue itself, that enables us to withstand the encroachments of disease, and though vomica after vomica may form, the remaining portion of the lung remains, for a time, unaffected. I need hardly state, that such cases are the most amenable to treatment.

The region that corresponds with the stomach and assimilative organs is situated on each side of the head, just above the zygomatic arch, the temporal region. You will notice, that while some are full in this region others are flat and others are deeply indented, as if from an atrophied condition of the temporal muscles. Here you may make a very just estimate of the power of assimilation that an individual possesses, by the elevation or depression met with, for the deeper the depression the weaker the assimilative power. In the dyspeptic, this will be most apparent, and just in proportion as he improves, the region will be found to fill out.

The region connected with the heart and circulation is on each side of the head, immediately above the ears. It is the seat of what the phrenologists call the organ of Destructiveness; the wider the head at this part, the more activity the individual will display, and hence the organ is more appropriately called the organ of Executiveness. The more prominent the part, the more powerful the heart and circulation. If very large, there will be a tendency to congestion to some weaker organ, and later in life to apoplexy; but if, on the other hand, the part be flat or depressed, poverty of

circulation, with its attendant evils, such as cold extremities, etc., etc., will be found present.

The fourth and last region to which I would direct your attention, is the cerebellum, which, as most of you already know, is intimately connected with the sexual system. Where it is large and full, it denotes vigor of manhood, and may be compared to the boiler that supplies the power to the engine. If very large, it is apt to lead to intemperance and abuse of the sexual organs; the results of which are so frequently met with in daily practice. Where it is small, there will be a deficiency of so-called "staying power," an aptness to be easily tired after

slight exercise. It is among the victims of self-abuse that the wasting away of this part is most apparent, and if the baneful habit be abandoned before organic injury has been inflicted upon the system, under proper medical treatment assisted by a judicious use of gymnastics, the parts will soon show signs of filling out again.

I have said nothing about the manner in which the deficiency of one organ may be, to a certain extent, supplemented by strength in another, as this would have carried me far beyond the time allotted to our essays; but should the subject be found sufficiently attractive to you, I shall be happy to return to it at some future period.

J. ADAMS, M.D.

BRAIN WORK.

A WRITER in the *Medical Times* summarizes the danger and need of the time under this title, and points his professional brethren to their duty in the matter. He says:

"The brain, like every other organ in the body, when in health works without friction and without apparent effort. When that work seems a toil and a heavy labor, it shows something is wrong, either in the nutrition of the brain or in the general system, and instead of forcing it to do work against which it protests, the cause should be ascertained and remedied. The skilled athlete does his work easily without apparent effort. Every part of the body, the stomach, the lungs, the bowels, do their work so easily and with so little friction that we are hardly aware of their existence except by the results. An immense amount of the hardest kind of brain work can be accomplished even in old age without apparently the slightest unpleasant result, and attended only with the ordinary fatigue of healthy work. In proof of this we need only instance some of the prominent European statesmen, whose power for brain work seemed to be not only unimpaired, but was strengthened after they had passed threescore and ten

years. One reason undoubtedly is, the peculiar mental training which excludes, from childhood up to old age, those dangerous factors in our new country and growing institutions, of worry, excitement, and undue haste. The dangerous elements in our American life are not only haste, worry, and excitement, but, strange as it may seem in a land of plenty, starvation of the brain. The brain and nerve tissues are the highest and most delicately organized of all the structures of the human body. In this system, the force is generated which brings into activity all the functions of the body. It supplies not only its own life and vitality, but that of all the other organs. In a healthy condition it usually craves those very elements of food which best promote its own nutrition and that of the general system. The active working brain demands a food rich in nitrogen, different in many particulars from that of the mere physical worker, where there is but little thought, but mere muscular activity. But the highest type of manhood is undoubtedly that where neither the physical or mental system is cultivated at the expense of the other, the food being adapted to the wants and development of both. Especially is this

the case in childhood, where the brain is developing, and the organs in a formative process. A lack of the proper kind of food, and an increase in the work placed upon the brain as a whole, or any one faculty, sufficient to produce tension, must result in some form of physical disturbance or brain harmony, which may leave its effect upon mind and body through life. The effect of brain work rightly systematized is undoubtedly to increase its strength and activity, and this very activity stimulates nutrition. It is easily to be seen that the working of the healthy brain, through its controlling power over the entire body, has a tendency to prevent the indulgence of those sensual and selfish desires and passions which not only disturb, but bring in a direct conflict with the organic laws of our being all the organs of the body.

"It is a problem which time alone can solve if the hereditary taint of disease and mental inequalities which flow down the current of life for generations may not, by proper brain food in childhood, mental and physical, with healthy surroundings, be so far held in check as at length to be entirely eradicated. This great social problem reaches out and is felt in every avenue of life. How can a child be fed intelligently, trained intelligently, developed on a plane of mental and physical harmony, until parents are imbued with the correct ideas of life, and the home becomes a school, through which divine and human influences blend in a harmonious mental and physical development? There are homes where a polluted family current has become purified, and the mental and physical characteristics of a race changed from a plane of sensual and vicious indulgence to higher development and nobler aspirations. It may have been after a protracted struggle, a combat lasting through more than one generation, but the work has been done, and what has been accomplished in one home may be reached in every home throughout the world.

"In this work of regeneration, an en-

lightened, honest, fearless medical profession must take the lead. In dealing with the human race we must deal with facts evident to our senses and draw our illustrations from the every-day walks of life with their present rewards and present penalties. We are like men living in a narrow valley hemmed in by impassable mountains. From over the barrier on one side there comes no voice from the past to tell from whence we came or the process of our development. The lights of science thus far are dim and uncertain, and all is doubt and conjecture. The world beyond those mountain-tops on the other side, heights only to be passed by disembodied spirits, is silent to us. It sends no messenger back to us to tell of its secrets, its brightness or its gloom. We hope everything. The present life is with us and we can trace its progress and the influences at work upon human development, from the early dawn of life to old age, from the cradle to the grave. The penalties of violating natural laws, of undue tension of the brain, are around us on every side, in wrecks and ruins, in the scaffold, the prison, the hospital, and the asylum. And the results also of proper brain development, of well-ordered lives, are seen in happy homes, in splendidly developed mental and physical organizations, and in lives full of usefulness and honor. The world is so full of illustrations everywhere, of both sides of the question, of the downward tendency of vice and the upward path, and nobler, sweeter life of virtue and honor, that they constitute stronger illustrations of great truths and more powerful incentives to a correct life than threats of future wrath or promises of future rewards. And just here the physician steps in, with his armory of facts, drawn from every-day life, as the counsellor, adviser, and friend. Happy will it be for him and the world if he realizes, even partially, the responsibilities and possibilities of his profession, and acts in accordance with an enlightened judgment," advising more in the line of prevention than for after cures.

HOW TO GROW.

"HOW can I, a boy between the years of fifteen and sixteen, grow tall? Or what would be good for a boy's growth?" C. E. B. asks.

Tallness comes from growth of bone; and bone material in abundance is therefore essential to stature. Horses, cattle, and men who live on limestone mountains and ridges, all the way from Tennessee to the upper end of the Green Mountain range, are taller than are the men and cattle who are reared in the same latitudes away from the limestone region. As bones are largely composed of the phosphate of lime, soil which has an abundance of lime material will supply this ingredient to every blade of grass, every strawberry, every grain of wheat, everything indeed that the animal or man eats, and thus he has opportunity for secreting or appropriating all the bone material that is necessary for the growth of his frame. In those regions of the old States which are not abundantly supplied with lime, the farmers are obliged to purchase lime and bring it from long distances to top-dress

their land in order to raise good wheat; even then, the wheat is sometimes only half fed with this material, and the eater's bony structure is not properly fed by it.

Now, how do people commonly live in respect to food for bone, brain, and muscle? They live largely on superfine flour, butter, sugar, fatty matter; they eat cake and griddle-cakes, and thus they take so little lime or bone material, that they have small, weak, short bones, light and weak muscles, and a general lack of brain and muscular development. With oatmeal as an article of diet, and the entire wheat made into bread, with lean beef or mutton, beans, and milk, the frame can attain to all the altitude that belongs to its constitution, and the person can improve, in fact, on his inherited qualities. In respect to height, people are rarely too tall; we never knew a tall man that regretted his height, though occasionally a girl that is five feet eleven wishes she were a few inches less; but these cases are so rare that we don't wish to give a prescription for reducing the height. s.

WHITE OR BROWN BREAD?

A WRITER in the *Nineteenth Century* condenses the evidence in favor of wheat-meal bread in the following paragraph:

"The earliest (?) agitator in the matter observed, two years ago, when travelling in Sicily, that the laboring classes there live healthily and work well upon a vegetable diet, the staple article of which is bread made of well-ground wheat-meal. Nor are the Sicilians by any means the only people so supported. 'The Hindus of the north-western province can walk fifty or sixty miles a day with no other food than "chapatties," made of the whole meal with little "ghee" or Galam butter.' Turkish Arab porters, capable of carrying burdens of from four

hundred to six hundred pounds, live on bread only, with the occasional addition of fruit and vegetables. The Spartans and Romans of old time lived their vigorous lives on bread made of wheaten meal. In northern as well as southern climates we find the same thing. In Russia, Sweden, Scotland, and elsewhere, the poor live chiefly on bread, always made from some whole meal—wheat, oats, or rye—and the peasantry, of whatever climate, so fed, always compare favorably with our South English poor, who, in conditions of indigence precluding them from obtaining sufficient meat food, starve, if not to death, at least into sickness, on the white bread it is our modern English habit to prefer. White bread alone will

not support animal life. Bread made of the whole grain will. The experiment has been tried in France by Magendie. Dogs were the subject of the trial, and every care was taken to equalize all the other conditions—to proportion the quantity of food given in each case to the weight of the animal experimented upon, and so forth. The result was sufficiently marked. At the end of forty days the dogs fed solely on white bread died. The dogs fed on bread made of the whole grain remained vigorous, healthy, and well nourished. Whether an originally healthy human being, fed solely on white bread for forty days, would likewise die at the end of that time, remains, of course, a question. The tenacity of life exhibited by Magendie's dogs will not evidently bear comparison with that of the scarcely yet forgotten forty days' wonder, Dr. Tanner. Nor is it by any means asserted that any given man or any given child would certainly remain in vigorous health for an indefinite length of time if fed solely on wheat-meal bread. Not a single piece of strong evidence has been produced, however, to show that he would not, and in the only case in which whole-meal bread has been tried with any persistency, or on any considerable scale among us—to wit, in jails—facts go to show such bread to be an excellent and wholesome substitute for more costly forms of nutritious food."

A HEALTH ALPHABET.—The Ladies' Sanitary Association of London gives the following simple rules for keeping health, which children may commit to memory with lasting profit :

A—s soon as you are up shake the blanket and sheet ;

B—etter be without shoes than sit with wet feet ;

C—hildren, if healthy, are active, not still ;

D—amp beds and damp clothes will both make you ill ;

E—at slowly and always chew your food well ;

F—reshen the air in the house where you dwell ;

G—arments must never be made too tight ;

H—omes should be healthy, airy, and light ;

I—f you wish to be well, as you do, I've no doubt,

J—ust open the windows before you go out ;

K—eep your rooms always tidy and clean ;

L—et dust on the furniture never be seen.

M—uch illness is caused by the want of pure air ;

N—ow, to open the windows be ever your care ;

O—ld rags and old rubbish should never be kept ;

P—eople should see that their floors are well swept.

Q—uick movements in children are healthy and right ;

R—emember, the young can not thrive without light.

S—ee that the cistern is clean to the brim.

T—ake care that your dress is all tidy and trim ;

U—se your nose to find if there be a bad drain ;

V—ery sad are the fevers that come in its train ;

W—alk as much as you can without feeling fatigue ;

X—ercises could walk full many a league.

Y—our health is your wealth, which your wisdom must keep ;

Z—eal will help a good cause, and the good you will reap.

At a meeting of the London Medical Society, Dr. Blake, a distinguished practitioner, said that he was able to cure the most desperate case of toothache, unless the disease was connected with rheumatism, by the application of the following remedy : Alum, reduced to an impalpable powder, two drachms ; nitrous spirits of ether, seven drachms. Mix, and apply to the tooth.

A VEGETARIAN RECORD.

AN English gentleman who made an experiment to ascertain the effect of a vegetarian diet, published an account of it in the *British Medical Journal*, stating some things of importance in their bearing upon questions of a reformatory character, etc. Before venturing to make his conclusions public, the experimenter, Mr. T. R. Allinson, practiced his vegetarianism for fully a year. When he first began he did not feel that satisfaction which one feels after a flesh meal, and the vegetables tasted insipid; in fact, he had to use sauces and pickles to get them down. Time gradually used him to his diet, and now he can eat them just as they are cooked. He has lost all desire for sauces, spices, mustard, and pepper; salt he uses in small quantity. His taste for alcoholic liquors has also gone, and with it his liking for tobacco. He is fond of mental work, and finds he can do more work on it than on a mixed diet. He has not had a bilious attack or sick headache since taking to it. Rheumatic pains flitted about his joints, and he was afraid of rheumatic arthritis setting in; but three months sufficed to rid him of these. There has been no decrease in his bodily powers, and he can run and take exercise as well as ever. He has gained seven pounds in weight during his experiment; his senses are acuter, especially those of taste and smell; he has a good flow of animal spirits, and is very rarely depressed. He does not eat more food on his new diet than he did as a mixed feeder. Breakfast consists of brown bread, apples, and a cup of coffee; in summer he has lettuce instead of apples. Dinner is usually composed of two vegetables, brown bread, and a pie or pudding. For tea he has a cup of milk and water, bread and jam. Supper, when taken, is bread and jam, cold pudding or boiled onions. Eggs, milk, butter, and cheese he uses only in moderate quantities.

SAPIENT ADVICE.—A contributor of the *London Medical News* thus sets off an incident of profound absurdity: "A certain well-known physician, who enjoys

the distinction conferred by a titled name, was recently called into the country for consultation with the personal attendant on a noble lord. After a stay proportioned to the gravity of the case and the social importance of the illustrious patient, the eminent physician departed for the station, mutual satisfaction having resulted from the visit. While pacing the platform, however, the centre, we may be sure, of concentrated village admiration and awe, the great light of modern medicine was suddenly confronted by a breathless but much belivered minion of the sick nobleman, who, with many apologies uttered in his master's behalf, begged the M.D. Bart. to supplement the directions he had already given with information respecting the merits of grapes as an article of diet for the invalid. The request was received with a gracious bow given in approving recognition of the thoughtful nature of the application, and then ensued a spectacle of sublime significance. For about a minute the eminent one slowly paced in pondering thoughtfulness, and then gave forth, as a result of full consideration of an important, nay, vital, problem: 'Tell his lordship that he may eat grapes, but *white ones only*; be sure and impress this upon him—that he must on no account touch any others; white ones, and no more than six per day.' The fast-coming express just then approached the station, and while the great one sped away to the London anxiously awaiting him, the awe-struck servant returned to tell the tale, how the vast intellect of the mighty consultant could even discriminate between the harmless influence of white grapes and the poisonous properties of colored ones. This little narrative was communicated to me by 'one who knows' on Sunday last; and it has seemed to be worth repeating as an example of the refinement to which the humbug of consultation may extend. It is palpably clear that any such exhibition as that described above could ever be indulged with one intent only, and that the magnification of the exhibitor's claims to knowledge."

NOTES IN SCIENCE AND AGRICULTURE.

Source of the Sun's Heat.—Prof. Ball says, in a paper recently published in the *Contemporary Review*, that the sun must have some source of heat in addition to that which it would possess by virtue of its temperature as an incandescent body. If we suppose the sun to be a vast incandescent body, formed of materials which possess the same specific heat as the materials of which our earth is composed, the sun would then cool at the rate of 5° to 10° per annum. At this rate the sun could not have lasted for more than a few thousand years before it cooled down. We are therefore compelled to inquire whether the sun may not have some other source of heat to supply its radiation beyond that which arises merely from the temperature. Of the various sources which have been suggested, it will here only be necessary to mention two. It has been supposed that the heat of the sun may be recruited by the incessant falling of meteoric matter upon the sun's surface. If that matter had been drawn only by the sun's attraction from the remote depths of space, it would fall upon the sun with an enormously great velocity, amounting to about 300 miles a second. It follows, from the principle of the equivalence between heat and mechanical energy, that a body entering the sun with this velocity would contribute to the sun a considerable quantity of heat. It is known that small meteoroids abound in the solar system; they are constantly seen in the form of shooting stars when they dash into our atmosphere, and it can hardly be doubted that myriads of such bodies must fall into the sun. It does not, however, seem likely that enough matter of this kind can enter the sun to account for its mighty radiation of heat. It can be shown that the quantity of matter necessary for this purpose is so large, that a mass equal in the aggregate to the mass of the earth, would have to fall into the sun every century, if the radiation of the sun were to be defrayed from this source. That so large a stream of matter should be perennially drawn into the sun is, to say the least, highly improbable. But it is quite possible to account for the radiation of the sun on strictly scientific principles, even if we discard entirely the contributions due to meteoric matter. As the sun parts with its heat it must contract, in virtue of the general law that all bodies contract when cooling; but in the act of contraction an amount of heat is produced. By this the process of cooling is greatly retarded. It can, indeed, be shown that, if the sun contracts so that his diameter decreases one mile every twenty-five years, the amount of heat necessary to supply his radiation would be amply accounted for. At this rate many thousands of years must elapse before the diminution in the sun's diameter would be large enough to be appreciable by our measurements.

Two Types of Teachers and STUDENTS.—“The man who devotes his whole energy to the discovery of phenomena,” says James Freeman Clarke, “discovers facts and laws, but may see nothing beyond. The man who turns his attention wholly outward misses the facts which are revealed to the inner consciousness. He who deals with processes of the understanding does not rise into the sight of absolute truth and beauty.” The principle here stated suggests to us that there are two types of educators—those who discover facts and see nothing beyond, and those who see “absolute truth and beauty,” but fail to be able to direct duller or immature minds so that they, too, can behold the wondrous sights. The first is the machine educator. He knows the laws which make for good order. Whether supervising or teaching, he keeps a cash account. He knows how each boy or girl stands from day to day, how many lessons are imperfect, how much tardiness, how many absences, who have whispered, who have not; the system bristles with statistics; examinations, written and oral, follow each other in quick succession; and success, as in a merchant's office, is measured at the end of the year by the manipulation of the Arabic figures, under a system of double entry. The other type of mind may be called the instinctive. It sees principles, beauty; absolute truth, it may be. It is not generally of the earth earthy, but lives in a sublimated atmosphere, and would draw all children unto it. Its motives and purposes are to be praised; but the weakness of this type of mind in the educational sphere is, that it is impatient of restraint; it takes no note of time, but, worse than that, it takes no note of conditions. It is tethered to them just the same, nevertheless, but acts as it would were they mere figments of the imagination. We do not propose to quarrel with either type, for both have their virtues, and both we could not very well do without. But let us admit also their limitations, and—*festina lente*.

Growth of Boys and Girls.—The investigations of the Anthropometric Committee of the British Association have made more or less clear several interesting facts respecting the rate of growth of the two sexes in the British isles. The period of most rapid growth is from birth to five years of age, and then both sexes grow alike, the girls being a little shorter and lighter than the boys. From five to ten the boys grow a little faster than the girls, but from ten to fifteen the girls grow the faster, and at between eleven and a half and fourteen and a half years old are actually taller, and from twelve and a half to fifteen and a half are heavier than the boys. The boys, however, take the lead between fifteen and twenty years, and grow at first rapidly, but after—

ward slower, and complete their growth at about twenty-three years, while girls grow very slowly after fifteen years of age, and attain their full stature at about the twentieth year. The tracings and tables show a slow but steady increase in stature up to the fiftieth year, and a more rapid increase in weight up to the sixtieth year in men, but the statistics of women are too few after the age of twenty-three to determine the stature and weight of their sex at the more advanced periods of life. The curve of the chest-girth in men shows an increase at a rate similar to that of the weight up to the age of fifty years, but it appears to have no definite relation to the curve of stature. The strength of males increases rapidly from twelve to nineteen years, and at a rate similar to that of the weight; more slowly and regularly up to thirty years, after which it declines at an increasing rate to the age of sixty years. The strength of females increases at a more uniform rate from nine to nineteen years, and more slowly to thirty, after which it falls off in a manner similar to that of males. The curves of strength for the two sexes are not parallel: at eleven years females are weaker than males by twenty-two pounds; at twenty years of age by thirty-six pounds. The fact that man continues to grow in stature up to his fiftieth year contradicts a common notion on the subject, according to which he ceases to grow before he reaches half that age.

How Oil Smooths Turbulent WATER.—At the recent meeting of the American Association for the Advancement of Science, Mr. E. P. Calverwell read a paper on "The Probable Explanation of the Effect of Oil in Calming Waters in a Storm." He said that when the surface of the sea had become quite smooth after a storm, it was very common for long rollers to break on a sand-bar. If there were no wind and the sea glossy, these would not break until quite close to the shore, even though the ordinary theory pointed to their breaking earlier, unless a force directed in the opposite direction to that of their motion were exerted on the wave. Such a force might be supplied by the wind; but if it rose in any direction, the waves broke much sooner. This effect was therefore due to some secondary effect produced by the wind-pressure, and not directly by the pressure itself, and it was to the ripples produced on the surface (which disturbed the wave-motion) that the speedy breaking was to be attributed. It was, however, a direct result of theory that the ripples depended on surface tension for their propagation, and could not exist in large amount on the oiled surface. It was also evident that the hold of the wind on the wave was greatly decreased by the absence of ripples, and thus the oil acted both to prevent the wind having much effect on the surface, and also to prevent the motion of the water in the wave being such as to cause breaking. The amount of friction might perhaps sensibly influence the breaking, but definite experiments on this were still wanting.

Original Application of "SOCIOLOGY."—The word Sociology, says an English writer, was introduced into literature by the French philosopher Auguste Comte, the founder of the Positive system. In his classification of the sciences, he placed this new science as the culminating point, by the addition of which the whole system was rendered complete. His philosophy found no place for either metaphysics or religion, but only for natural law. The word sociology has thus come to be associated with materialistic systems of doctrine, and has been regarded with suspicion by the Christian world. It is by no means necessary, however, to shun all inquiries into the development and regulating principles of society, because the task has been undertaken by some who refuse to look beyond the blind action of mere material law. On the contrary, society in its growth and nature can be best expounded by those who take spiritual forces into account. The introduction of Christianity into the world was accompanied at once by the reformation of merely natural human society, so as to constitute, on a new basis, a new society, differing in its better elements from that into the midst of which it was introduced, and which it was intended in course of time to assimilate to itself. The principles which ought to rule and mould Christian society are found in the New Testament, and the investigation and exposition of them evidently form a department of theological study.

Stuffed Spiders.—According to the Santa Barbara *Independent*, Southern California can enter prize animals at any fair in the department of ugly, vicious, and poisonous spiders. The most precious trophies the tourists bear away from this coast are, in all probability, the neat cards decorated with these monsters of the insect world. Every one is familiar with the trap-door and nest of this cunning but ugly creation, and of which strange little habitations every adobe ranch is full. So densely populated with these beautifully-lined tunnels are some of the sunny, quiet valleys among the foot-hills, that close inspection will reveal their almost invisible trap-doors hardly a foot apart. Yet, in spite of this, hardly a living animal will be seen. There is a legitimate demand for prepared specimens, both at wholesale and retail. When first brought in they are deprived of what life is left in their bodies by poisonous fumes or other application of poison. After the taxidermist has made sure they are quite dead—a wise precaution—he cuts them open on the under side and, removing the loose matter therefrom, carefully stuffs them with cotton. This stuffing process is quite a delicate operation, and requires no little knack to perform neatly and successfully, without injuring the animal, and bringing it back to its normal shape and size. A humming-bird would seem to be about as small an object as could easily be put through this painstaking operation, let alone an insect even of the size of a tarantula. This having been completed, the spider is placed upon a

board and properly held in position by pins, one through the body and one in each foot, and set in the sun to dry.

The sale of them in Santa Barbara is carried on both at wholesale and retail, several parties carrying on the business. The retail price is fifty cents apiece, one merchant disposing of many dozens a year in that way. The wholesale operations are confined to supplying the natural history stores of San Francisco, which establishments pay \$3 per dozen for well-prepared specimens, the supply seeming never to crowd the demand. In spite of their great numbers, few instances occur where people have been bitten by them, the tarantulas generally being more anxious than the other party to get out of the way.

To Raise Mushrooms.—A contributor to the *Druggists' Circular* thus advises on this point :

"We will take mushrooms, for example, as they are cultivated to some extent in various localities. The situation for the bed should be in a warm place, entirely secluded from the light. This bed consists of a composition of which one-third is leaf mould well screened and thoroughly mixed. The beds are usually four feet wide and eight feet long. This composition, after having been freed from straw and other coarse material, is firmly packed one foot in thickness and a thermometer placed in it. Within twelve days the thermometer will have reached 150° or 160° Fah., then slowly recede. When it has reached the temperature of between 70° and 80° Fah., the spawn, which name is given to all one-celled seed of fungous growth, is placed in the bed at one foot distance from each other, and covered with loam two inches thick, firmly pressed, and another covering of cut hay four inches in thickness. The temperature of between 50° and 60° Fah. will be maintained for four or five weeks. The weather appears to have little to do with the bed in this respect.

"We see no more of it for about three weeks, when upon removing a portion of the hay a large mushroom will be found. This is twisted off, and the hole filled with loam. In this place they will continue to grow. When the first large one appears a great many minute ones are seen at its base. For this reason care should be taken not to injure them more than possible in extracting the full-grown ones from the bed."

The New York Anthropological Society.—This is a new organization which has been started by several gentlemen, residents of New York City and the suburbs, who are deeply interested in the phenomena of psychology and desirous to pursue a certain class of investigation in that methodical manner that is consistent with a true scientific spirit. The majority of these gentlemen are connected with the professions of medicine and theology, and have an established reputation which renders them free from imputations of insincerity or jugglery. Their aim is a positive one, and as formulated in a late cir-

cular is "to prosecute researches in the science of anthropology, to collect and diffuse information, and to promote acquaintance and cooperation among its members and with other students of psychology in this and foreign lands by personal intercourse, correspondence, and by exchange of publications." The society is similar in its object to the Society for Psychical Research, lately formed in England, and which includes in its membership some of the leading scientific minds of the kingdom. The president is Dr. E. P. Thwing; the secretary, Dr. A. D. Rockwell, of New York City. Communications addressed to either of these gentlemen, or to the editor of THE PHRENOLOGICAL JOURNAL, will receive prompt consideration.

Snow as a Protection.—However disagreeable it may be to have the ground covered two feet in depth with snow, the *Massachusetts Ploughman* says it is one of the best protectors which the farmer has, considering how little it costs. When the land is covered in the autumn, and it lays all winter, it serves as a great protection to the grass roots and to all creeping vines. Strawberry plants that have been covered all winter with snow, come out in the spring fresh and green, even though they have not been mulched.

The snow not only protects the vegetation which it covers up, by sheltering it from the cold winds and sudden changes of weather, but it prevents the frequent freezing and thawing of the ground, which is so destructive to small roots that are near the surface, and which are often lifted entirely out of the ground by the action of the frost. When the land lays open and exposed all winter, it not only injures the grass and small plants, but it injures the land itself, by blowing away the finer particles of decayed vegetation from the surface, and when thus exposed there is a chance for the frost to enter the ground to the depth of several feet, thus cooling the earth to a great depth, requiring many warm days in the spring to thaw it out and warm it up sufficiently to start vegetation; but when a deep snow covers the land until spring opens, as soon as the snow melts, the ground being free from frost, will soon be in a condition to cultivate and for plants to grow.

As a rule, the season comes forward earlier when the ground has been covered with snow the entire winter, than it does when there has been but little snow. In our climate no doubt it is best to have plenty of snow, and have it lay on the ground during the period of cold weather. This year we have started with a good covering of snow; should it be replenished as fast as needed to keep the land covered, we may look for good crops of grass next season, and a spring that will be favorable for planting farm crops; keeping this in view, we can dig our paths with more cheerfulness, and resort to rubber boots to keep the snow out, with a feeling that there is a bright side to a snow-storm, without resorting to merry sleighing parties, or mingling with the jolly coasters.



CHARLOTTE FOWLER WELLS, *Proprietor.*
 H. S. DRAVTON, A.M., M.D., *Editor.*
 NELSON SIZER, *Associate Editor.*

NEW YORK,
 MARCH, 1884.

FUNDAMENTALS IN POLITICAL ECONOMY.—2.

(Continued.)

IN nervous tissue, organic development and function are found to be equally the subject of law as other parts of the body are; size and quality have as much to do here with power and activity, as in bone and muscle with strength and mobility. Large anterior lobes of fine texture manifest superior intellectual susceptibility and vigor; whereas a small, contracted forehead and coarse organization are recognized embodiments of a feeble mental endowment. The observations of Broca, Maudsley, Benedikt, and others confirm those of Gall and Spurzheim, that the criminal type of cerebrum is characterized by a disproportionately wide head at the base; the lower parietal region being protuberant, and the anterior or frontal convolutions deficient; while the texture of the nervous tissue is coarse, and exhibits an excess of fissures, thus reducing the gyrus development.

Amiability, generosity, refined sentiment, and true nobility of character are commonly associated with an elevated

and symmetrically rounded crown. No intelligent person would expect to find a Howard, or a Fry, or a Franklin, or a Bergh, in a man whose brow is low and beetling; or a Caligula, a Ravailac, a Probst, in one whose forehead is broad and high, and his crown dome-like in fulness. Related to this classification of the physiologist is that of the metaphysician, who describes man as composed of three grand elements: *body*, *mind*, and *spirit*; body being the material structure which moves and acts; mind the unseen entity that reasons, understands, and judges; spirit the higher essence that impresses conduct with a moral quality that inspires emotion, sympathy, affection, the sentiments of aspiration and faith, and brings man into relation with the unseen and divine. It matters not, however which view of the organization of man we take, the same necessity applies, a necessity of growth, development, culture in all three parts, if harmony and strength are to be properties of mind. One-sided training can but produce a one-sided result; a man whose mental vision is contracted and whose domain of action is narrow. His moral faculties usually suffer most by one-sided development, their neglect resulting in a warped and deformed condition, which has a most unhappy influence upon the character. Cultivating the intellect only ministers to the selfish instincts, for the ordinary routine of the world around us powerfully stimulates their action. There should be judicious training of the moral sentiments, that their elevating influence may offset or restrain the undue activity of the selfish nature, and refine the intellect by supplying noble motives and raising the scale of judgment. Perfection of character is dependent upon balance of

faculty. A complete balance may be unattainable by man, but we may approximate it, and the nearer the approximation, the higher the degree of mental harmony and happiness.

Civilized man has always recognized the necessity of systematic training to the effective development of mind and body; and though chief attention has been given to the intellect, the sages of every period have deprecated the neglect of morals, and declared the importance of their methodical culture. Greatness seems to have been thought by the masses to be dependent upon intellectual power: keenness of perception, sagacity of understanding, clearness of logical synthesis; and even now it would seem as if the intellect were the all of mind in the opinion of the learned; whereas the source of greatness is to be found rather in the moral strength of a man, in the calm and generous spirit which ennobles and dignifies his purview of life. Seneca described the greatest man as one "who chooses right with the most invincible resolution; who resists the sorest temptation from within and without; who bears the heaviest burdens cheerfully; who is calmest in storms, and most fearless under menaces and frowns; whose reliance on truth, on virtue, and on God is most unflinching."

The ambitious men who plot against the liberties of a State and the welfare of a people may be, like Alcibiades, Pompey, Richard of York, Aaron Burr, possessed of rare intellectual gifts, but of weak or undeveloped morality, so that the higher sentiments do not exercise their restraining and purifying influence over the elements of envy, arrogance, lust of power and fame, and, consequently, their schemes, unbalanced and inharmonious like them-

selves, if put in practice are likely to hasten the State and themselves to a common wreck.

Dr. Lieber refers to education as promoting popular liberty in these terms: "Education has been considered by many as the true basis of popular liberty. It is unquestionably true, and proudly acknowledged by every lover of modern popular liberty, that a widespread and sound education is indispensable to liberty. But it is not liberty itself, nor does it necessarily lead to it. . . . Education is almost like the alphabet it teaches, it depends upon what we use it for. Many despotic governments have found it to their interest to promote popular education, and the schoolmaster alone can not establish or maintain liberty, although he will ever be acknowledged as an influential and indispensable assistant in the cause of modern freedom. Liberty stands in need of character."

It is the last sentence of five words which comprises the essence of the matter. Intellectual education is but a one-sided, partial training of the individual, and does not develop his character in that broad and general spirit which is essential to the appreciation of the meaning of social and political freedom. It seems rather to develop a narrow, self-interested view of life, and to make personal aggrandizement or selfish enjoyment the prime aim of existence. High intellectual attainments were the boast of ancient Greece, Egypt, and Rome, but in the climax of their material greatness these nations were decaying. Moral turpitude sapped the foundations of their existence.

The inefficiency of the culture of the intellectual faculties alone to offset crime is illustrated in our own land. Despite

the vigorous endeavors of most of the States to provide for the training of every child, crime, and the sad physical results of crime, is on the increase, demanding year after year more ample prison and asylum accommodation; and in every prison, penitentiary, and house of refuge the proportion of those who can read and write to the illiterate, is strikingly large. Of 478 convicts received into the Eastern penitentiary of Pennsylvania in 1882, 371 had attended the public schools, and their average age on leaving school was over 17 years. Of 179 prisoners from Philadelphia, 139 had attended public schools, 17 had attended private schools, and but 13 were set down as never having been to school. The criminal statistics of Paris, as reported in 1882, furnish these inferences :

1. That 26,000 persons of the class wholly illiterate furnish five criminals.
2. That 25,000 of the class able to read and write furnish six criminals.
3. That 25,000 of the class of superior instruction furnish more than fifteen criminals.
4. That the degree of perversity in crime is in direct ratio with the amount of instruction received.
5. That in the departments in which instruction is most disseminated crime is greatly more prevalent; in other words, that morality is in inverse ratio with instruction.
6. That relapse into crime is much greater among the instructed than the non-instructed portion of the community.

The plain teaching of these unpleasant, nay, when seriously looked at, startling facts, is that the training of the faculties for the mere business or scientific routine of life is a mistake; that individual and social success is dependent upon some-

thing more; that the young must be developed in those sentiments and feelings whose function is to inspire sympathy, justice, kindness, chivalry, patriotism. No intellectual training will exhibit to the youthful mind the lofty inspiration of the Golden Rule that must be applied practically in private life, if the public life of a community is to become elevated, refined, beneficent.

The State, to be harmonious, must be formed after the model of the harmonious individual. Therefore, in its organization, the principles of reason, physical force, and moral sentiment should have an equal prominence. "Government," says Mr. Burke, "is a contrivance of human wisdom to provide for human wants." How idle to expect that a system of government that does not complement man's nature will meet the wants of the individuals of the community! In this era men have reached that stage of capability when the nature and laws of life are analyzed with delicate nicety. What there is of power in it can be estimated; what it should be and what it should not be, can be declared.

The successful leaders of party are they who understand the motives of party organization, and the spirit of its rank and file. The successful administrators of the affairs of a nation are they who comprehend its structure, its elements of weakness and strength, the spirit of its population, and who keep constantly in view the welfare of the masses.

If the end of national organization is to accumulate the material resources which constitute wealth, or, adopting the language of Lord Macaulay, if "the business of government is to protect the people in making themselves rich," we assuredly circumscribe the functions of the

legislator and executive officer. They may then do their part in making effectual a code whose provisions are based upon the physical relations of cause and effect, and leave out of the case the broadly variant considerations of morality and sentiment.

IS IT WORTH THE TROUBLE?

" I MUST have the P. J. as long as I live, or till I become too poor to pay for it; have taken it ever since 1851 except during the war, and of course I could not get it then.

" J. A. N., *Rockingham, N. C.*"

" I owe it a debt of gratitude which I hope to be enabled some day to more fully cancel. Three years ago the first of this month, after six years of struggle with tobacco, I finally gave it up. Much is due to the JOURNAL for this result; for this conquest of the spirit over a tyrannical habit. I had read much previously to seeing the JOURNAL that had shaken my faith in the weed, but it was reserved for some of the thoughtful words it contained at about that time to cause a final capitulation. . . . To the JOURNAL I also owe the abandonment of moderate drinking.

" G. C., *Dallas, Texas.*"

" The first Number of the JOURNAL has arrived, and it is such an excellent publication for self-improvement and mental culture, that I regret that I did not subscribe for it yearly for a number of years back, for I am sure I should have been made better by its study, both for self-improvement and the art of reading character. . . . I am studying medicine, and I have a certain amount of time set apart for the study of Phrenology, for I think all physicians stand in great need of a good practical knowledge of this highly useful science.

" P. S., *Georgetown, O.*"

" Permit me to thank you for the really noble work done through the medium of

the JOURNAL. . . . I can bear testimony to the influence which phrenological information has had upon me in the words of a devotee of the science: ' I feel myself a thousand times more indebted to Phrenology than to any other of the sciences.' I hope that before long small, isolated Wales shall be filled with this sublime yet practical knowledge.

" E. V. D., *Swansea, S. Wales.*"

" I believe Phrenology is destined to bless the world. In the school-room and in private conversation, I take pleasure in presenting its claims on all suitable occasions. It has done me good, but not half so much as it would have done had I known its doctrines sooner. Therefore I am very desirous that young people should know something of its teachings before they make lifelong mistakes.

" J. A. J., *Windsor, Va.*"

Probably there is no department of humanitarian effort which is more misunderstood, belied, and disparaged, by people who deem themselves charitable and well-informed, than practical Phrenology. The earnest advocate of its truths meets with rebuff and censure often " in the house of his friends "; and were it not for his conviction of the great need of society for the instruction he can impart, and that he would be false to his conscience and the grace that has been given him, he would hold his peace, and hide his candle " under a bushel."

But there is an inspiration in Phrenology which makes those who become acquainted with it generous, liberal, and frank; they wish to impart to others the knowledge which has been of benefit in their own experience. They are enlarged in mind, bettered every way, and their hearts go out in love and charity for those around them who are perplexed about themselves and the issues of life. The Golden Rule looms up before them

as a supreme ordinance; its words are impressed upon their intelligence in characters of living light, and it possesses a new form of happiness in its practical applications. One of the natural results of this effect upon a person should be endeavor to promote the work of the special agent which has opened his eyes. If it be the PHRENOLOGICAL JOURNAL that brought light and healing to him, the sense of obligation as well as gratitude should make him a co-worker in behalf of its dissemination among the people, that all may partake in some degree of the benefits of its teaching. Oh, how much our people need of counsel and instruction in the common things of life! What terrible abuses exist because of ignorance of truth and duty in matters of utmost personal moment! Our friends will find work at their elbows in which they can engage, and the magazine of their choice could be the convenient helping hand. A labor of duty and love must always find some recompense, and the faithful phrenological teacher receives encouragement in the grateful testimony of those who have profited by his counsel.

A few definite declarations like those which the editor has taken from letters lately received, and placed at the head of these remarks, would cheer him were he but half in earnest; and his belief, were it not already well settled, would be anchored fast in conviction that the work that employs his head and hand is worth all the trouble.

A REVISED CLASSIFICATION.

A CORRESPONDENT residing at Sulphur Springs, Texas, has sent us the result of studies in phrenological classification, which is given elsewhere in

his own terms. The arrangement is certainly not without merit, and worthy of more than passing notice, as an attempt to reduce the organic centres of the brain to a more consistent system than appears in the old classification. The consistency of Mr. Hurley's division is best seen in his simple extension of the threefold organization — physical, intellectual, and moral, which, however, has the confirmation of the early phrenologists, in their frequent allusion to the three orders of mentality as related to three departments of organic function, while late writers carry the principle a step further, perhaps in their reference to "three-story brains." Mr. Hurley perceives a relation subsisting between the organs in the upper and lower strata of the brain which he employs for the purpose of bringing the faculties into three definite categories. The reasoning does not appear to us to be forced, but the normal sequence of a happy conception. Other observers have formulated ideas not very unlike this of our correspondent, but we think his classification has special merit in the critical and logical definiteness of its discrimination. There are difficulties met in making up a series of regular divisions of the phrenological faculties; *i. e.*, according to anything approximating mathematical exactness, which only those who have studied the subject can understand. Cross relations will appear to the careful thinker which make him hesitate with respect to the proper place of certain organs, and also incline him to consider the classification of others in some respects as little short of arbitrary. We should be glad to hear from some of our scientific readers after they have given Mr. Hurley's views the thoughtful consideration which is their due.

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE CONTRIBUTIONS unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal matters will be considered by the editor if this is done.

SENSE OF SMELL.—J. L. B.—It depends much upon the condition of the nervous organism, whether or not any method will be effectual toward the restoration of this sense. If you are wanting in it, consult a good physician, at least for his opinion.

QUALITY.—H. M. F.—Careful self-culture will improve the general constitution, and coincidentally the quality of a person. Care in one's habits or diet, exercise, work, recreation, study, etc., have such an effect; to improve in the respect of quality, is to refine the nature. It may be claimed by some that quality is a gift or inheritance; and without objection to this we may say that no matter what the inheritance, it may under proper conditions be elevated in tone. To make a fair beginning, it would be wise on your part to obtain a thorough phrenological examination; this will furnish the best data for self-study.

THE "CLASSICAL" CARTMAN.—H. B. M.—The incident to which allusion was made in a recent editorial, occurred in an Eastern city. It is said that the man, while a cartman, was accustomed to employ much of his leisure in studying

the classical languages; and one day, a distinguished scholar, while passing along, had his attention drawn to the cartman's absorption in a book; and as he passed, glanced at it, and observing that it was a Greek book, stopped and asked the roughly-dressed man if he understood Greek. On his answering that he could read it passably, he was requested to translate a few lines, and did so, and with such accuracy that the gentleman was highly pleased as well as surprised. Something of an acquaintance sprang up between the two, and the final result was, as we stated, an invitation from a collegiate institution to the cartman to take the professorship.

WEAK EYES.—H. S. J.—We advise you to be rather careful in the use of your eyes, as the work in which you are engaged is trying upon them. The reason that the negative seems to be tremulous and to get out of focus is because the optic nerve becomes wearied. Give the eyes frequent rest; bathe them often in tepid water; get abundance of sleep; and after a day's work do not sit up till late, reading, or where there is exposure to a strong light.

PHRENOLOGY AND MUSIC.—B. W. S.—We are rather doubtful of the success of a treatise on Phrenology set to music, but you have our entire consent for the attempt. One of our musical friends has published a composition or two in which he has sought to illustrate the subject, at least by the titles which he has given the compositions; and we are not aware that they have proven a great financial success. It is not an easy matter to make science musical.

TRUTH.—*Ques.*: What is the scientific definition of truth?

Ans.: By reference to a dictionary you will obtain the definition of the term; and that definition will be about as near to its scientific exposition as anything we may formulate. Presuming that you may not have an Unabridged at your command, we simply quote from one: "The quality of being true; conformity to fact or reality; exact accordance with that which is, or has been, or shall be; conformity to rule." Take your choice of these.

IMPRESSIONS.—M. T.—What you state with reference to the physical powers is by no means unusual. All persons have their impressions in regard to occurrences and losses in particular. Some, of course, have a much keener sense of prevision or foresight than others,—a condition which is dependent upon organization; and yet the exact constituents of organization, which conduce to

special sensitivity in this respect, we are unable to describe. Generally one of fine, nervous fibre, a susceptible mental temperament, a sprightly, resilient nature shows more facility of impression than others not so endowed. People with strong perceptive faculties, associated with large circumspection, strong Spirituality, and also the organ of Human Nature, are much more capable of fore-seeing than the average of people.

SELF-ESTEEM IN RELATION TO SMOKING AND DRINKING.—W. S.—We think that your impressions with regard to people who use tobacco, or drink, being more active in the faculty of self-reliance, is due to the effect of such habits upon the moral sentiments and the somewhat delicate and humane attributes of character. Tobacco and alcohol poison their habitual user, and reduce moral delicacy; at the same time they stimulate the lower nature, and so render the person off-hand to the degree of rudeness and coarseness. Possibly it is from this point of view that you have looked at the subject. We should not advise you, for the purpose of securing more self-reliance and personal independence, to use such things; we should fear the consequences. A man with strong self-esteem can not expose himself to dangerous habits with impunity; he is likely to be caught in the snare of vice and become more or less depraved. Often men of independent character are enslaved by these destructive things in spite of their assumption of superiority.

QUIT THEM AND FEELS BETTER.—A correspondent writes us from Chicago that he has not drank one drop of tea or coffee for sixteen years, and never drinks anything besides water; and is convinced that that is the best beverage for man; especially because his mind is clear, and his complexion fair. He was once a drinker of both the beverages named, but since relinquishing them has experienced much general improvement. And he would have us mention his statement in these columns for the sake of the good it may do to the reader who is still in bonds to or hankering after these common drinks of the American.

ORGANS ON THE MEDIAN LINE.—E. T. B.—Your informant is right with reference to the location of Amativeness, so far as the organ being double and lying in the back part of the head. Its precise location is in the hemispheres of the cerebellum. By reference to any treatise on Phrenology, you will find that all the organs are double and correspond with the double or hemispherical constitution of the brain; hence those highest in the brain substance are on the margin of the great fissure and their doubles are on the other side of it.

MR. O. S. FOWLER is lecturing somewhere in the West. The exact place we are unable to give.

What They Say.

Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

FROM AN EXAMINER'S NOTE-BOOK.—

Some years ago, a manufacturer of jewelry on Maiden Lane, New York, was robbed of a considerable amount of goods by an errand boy employed in his office. The boy's duties were handling and packing goods, when not in the streets, and the only security the master had was the integrity of the boy. The employer trusted him and was deceived. He then cast about him for another boy, but dared not depend on any knowledge he possessed of human character, to discover the selection. He knew the claims of Phrenology, and resolved to invoke its aid. He accordingly advertised in the morning papers for a boy of a certain age, and directed that application should be made at a certain hour at his store. In the meantime he called at our office and engaged the writer to visit the store half an hour later than the one appointed for applicants, and stated to us what he wanted: a capable boy, but at all events an *honest one*—a boy that would resist the temptations of the position.

At the time appointed, he had seventeen boys on the spot, each eager for the post. Five of the least promising of the party were interrogated, asked to write their name and address, and were dismissed. When I arrived as if by accident, he had the remaining twelve before him, like a class to read. He and his partners had exhausted their skill in sifting them, but fearing that among *that twelve* a Judas, too, might lurk, were waiting for the test of Phrenology to seal their preference. In passing through the "class," we came to one boy who had a strong, enduring temperament, a broad chest and a robust frame, but who was hardly sprightly enough, nor had he the taste requisite for the jewelry business. We told him that he ought not to come, if they selected him; that he had first-rate mechanical talent, but never would be contented with anything smaller than a steam-engine; we advised him to seek a position in a machine-shop, as he had just the talent, energy, and bodily vigor necessary to eminence in that pursuit. But the poor boy's cup of hope was dashed to the ground, and his tears followed it. The head man of the firm, with moist eyes, approached the boy, and, as he kindly patted him on the head, bade him cheer up, and call on him the next Saturday at the same hour, and in the meantime he would try what he could do for him. He promised to call, as requested, and smiling thankfulness through his tears, to the merchant and the Phrenologist, departed to tell his widowed mother that he had

not obtained this place, but felt sure of another and a better one.

From the eleven which remained, we selected two, and after they were all dismissed, to be addressed by post if accepted, we disclosed our opinion. One would be the smarter as a boy, and for three years do them the most service, but he would outgrow his position, and would want to rule before he had the right. The other, we said, was steady, high-minded, honest, and would ripen into capability, and make just such a man as a good man would be willing to see become his son-in-law, and succeed to his business, his good name, and his fortune. He would not be so serviceable as a boy, but was of the right material to ripen into a grand MAN.

This boy was the one accepted, still fills his place, and gives promise to become all we predicted.

But to return to the widow's son who left with the light of hope illuminating a tear. He returned at the time promised, and was told that they had obtained a situation for him (by relating all the facts as here stated) in one of the best machine-shops in New York, over the heads of more than fifty standing applications. The machinists wanted *first-rate* apprentices, and were willing to test the value of practical Phrenology.

The boy took his position at once, and occupies it still, with the very brightest promise for the fulfillment of our prediction, made when he felt that we had crushed his hopes, and both he, and his master, and his poor mother likewise, appreciate, with thankfulness, and freely testify to, the value of Practical Phrenology.—*Practical Phrenologist*.

MORAL EATING.—Mr. Richard Grant White, in his charming book of travel, "England Without and Within," has given us such a ludicrous picture of the "solemn business" our English cousins make of eating; the endless dinners, preceded by the making of elaborate toilets, necessitating a retinue of servants, as to make one ask, Why all this waste of time, that the lower and animal nature of man may be ministered unto? Dante, in his "Vision of Hell," shows us the terrible and disgusting punishment of gluttony—enough, one would think, to make all reading it forswear *that vice* at least.

I fully share with Byron one dislike—that of seeing any one appeasing this lower nature. With him, I believe, it was only seeing women eat that disgusted his morbid taste; but to my taste, morbid or otherwise, any one is not at their best while eating. Admitting that the right action of the mental, depends on keeping the physical in good order, the fact remains that eat we must, and let us, in the name of delicacy, make it as private an affair as possible! Is it not amazing the toil and moil, the

wearing out of lives that go on in this world; the ridiculousness of this never-ceasing question, "What shall we eat?" Is half the time given to preparing mental pabulum? And yet when we come to man's mind, the immortal that is to exist long after the mortal has gone back to its original dust, what preparation, what study, what nice care should enter into the spreading of viands that go to build up a being that is to outlast the stars. Alas, that to the majority, apparently, the animal appetite is of far greater consequence. I know of men, fathers of families, whose tables are supplied with every delicacy the markets afford, yet they scarcely taste the food prepared with trouble and expense at home, but will leave it to join a company of male friends of like "ilk," who repair to costly hotel-spreads or sea-side resorts, and to the music of band, and under the fire of the crowd's eyes, literally gorge themselves with course after course.

Why is it that even under the church-roof, where one would suppose only the spiritual appetite seeks food, there is often to be seen a "spread"? "Ladies are requested to furnish supplies for the table," is often the closing sentence of notices of social gatherings in the church parlor. Isn't there something more than ludicrous as shown by Mr. White, something very sad in this never outgrowing the flesh? Promiscuous feeding tends, I believe, to the deterioration of all fine and noble aspirations; develops a disposition to cry, "Let us eat and drink, for tomorrow we die," putting away from the thoughts all desire for any preparation for the life that is *not* "meat and drink." Is there not a serious defect in so training children as to make the gratification of appetite the main thing, instead of educating them into the knowledge that they are only to supply the body with food enough to keep in working order the higher and better nature, develop them into thinking, rational beings? The practice is to quite ignore any such doctrine, and so servants are kept slaving—bless God for the time when "the servant is free from his master"—expensive cooks hired, schools of cookery established, that new and costly dainties may be concocted, and time frittered away that might be so much better employed.

Do not understand me as decrying the very best preparation of food. I would have a table always neatly spread, the food wholesome and appetizing, and then *eaten*, not picked at, as I have seen a good many people do, and I never knew such a person to amount to much. A good eater is always a good worker, and a good eater is never a gourmand.

As to our English cousins, I never read an English novel without an actual tired feeling as I go over the tasks of valet and maid, butler and waiter. The long procession filing into the dining-room, the hours consumed in consuming; then, at a given signal, the rising and departure of the ladies, that the gentlemen (!) may devote themselves to their wine and cigars. What a popping of corks,

sparkling of champagne, moving of the wine in its cups too often anything but *aright*. In perhaps another hour these filled gentlemen adjourn to the drawing-room, one would suppose with the mental faculties so obscured as to be quite unable to hold a sensible conversation with a woman of ordinary abilities. How this surfeiting of the animal nature starves out the higher one! And these things go on for weeks and months, "lords," "dukes," and the whole rank and file of titles, living seemingly only for self-indulgence. Having at last laid down the pampered body, having "sown to the flesh," must they not of necessity "of the flesh reap corruption"? Would they be happy in any other life?

Let us accept seriously the necessity of supplying our physical wants, but let us, for decency's sake, no longer forsake the privacy of our homes, and allow this supplying to become a public affair like animals led to the public trough.

HARRIET N. SMITH.

PERSONAL.

MRS. SUSAN HOWE FOWLER, widow of the late Deacon Horace Fowler, the father of the Fowlers, phrenologists, and Mrs. Charlotte Fowler Wells, died at Orange, N. J., on January 31st last, at the age of ninety years. Although far advanced in life, her death was probably hastened by an accident which occurred to her a few months ago, by which one of her legs was broken. Mrs. Fowler was a granddaughter of Jemima Howe, who was made captive by the Indians in the early history of the settlement of our country.

WENDELL PHILLIPS, the great orator of reform and progress, is dead. The news takes the world by surprise, few knowing that he was seventy-three years old, so fresh and active has he shown himself at all times. He died on the 2d of February. No matter what may be the opinions of men North and South concerning the policy of Mr. Phillips' measures and principles, all will agree that he was a sincere, earnest, philanthropic man, with a genius for speaking unexcelled by any orator of his time.

THERE is a young Russian officer by the name of Pakovitch, who is only twenty-six, but said to have mastered a long list of languages, viz.: French, German, English, Danish, Swedish, Italian, Polish, Finnish, Serbian, Czech, Japanese, Chinese, and Malay languages. Besides these he is acquainted with three different Japanese, one South African, and two Chinese dialects, and is at present occupied with the study of Hebrew.

THE Hon. Wm. D. Kelley, of Pennsylvania, styled "father of the House of Representatives," attributes the cancerous tumor in the mouth, which last year caused him so much trouble, entirely to the use of tobacco. "For fifty-five years," he says, "I

chewed and smoked. Last spring I endeavored to break the habit, but it brought on nervous prostration. I am happy to say that I have conquered the habit, and now do not use the weed in any form."

THE Marquis Tso Tsung Tang, the great Chinese military leader who was recently appointed Imperial Commissioner for the conduct of affairs on the Tonquin frontier, and whose name is seen in almost every dispatch from France on the war now in progress in Tonquin, is seventy-two years old, but owing to his temperate and abstemious habits still retains the physical and mental vigor of his youth. He is poor in purse, but bears a character above reproach. He was born of poor parents and in one of the humblest social grades, and it is said that his marvellous success has been due to his own merits, and to the fact that he never has suffered contradiction from any of his subordinates. In person the Marquis is short, corpulent, and commonplace, with crafty black eyes, and a thin, gray-black mustache drooping over a firm, almost cruel mouth. He is a late riser, but attends to all his official business rapidly and regularly. He represents the old Chinese spirit of hostility to all foreigners, although he avails himself of European knowledge in military affairs and treats foreign visitors with kindness.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

A MAN'S collective dispositions constitute his character.

A FOOL may have his coat embroidered, but it will always be a fool's coat.—*Rivarol*.

ONE of the surest ways to lose your health is to keep drinking other people's.

ONLY those are crowned and sainted
Who with grief have been acquainted.

—*Prometheus*.

REALLY great men think of opportunity, and not of time. Time is the excuse of feeble and puzzled minds.

NOTHING makes us more agreeable to God and man, than to have great merit and a little opinion of ourselves.

WHO is wise? He that is wise unto salvation.
Who is powerful? He that governs his passions.
Who is rich? He that is content.

"Conceal yourself as weel 's ye can
Frae critical dissection;
But look thro' every other man
Wi' sharpen'd sleet inspection."

FORGETFULNESS is one of the broad ways to sin. A ship can be lost by carelessness as well as by design. The evils of life come mainly through inattention.

"BOOTS and gloves that fit, and a pretty hand, kerchief," answered a Frenchwoman when challenged to name three essentials of an elegant costume.

THE family man resembles an oyster on the half-shell. The shell is known at home, the soft side abroad. Some men carry this resemblance in their faces. A great many men have countenances like oysters.

WHENEVER I think of God I can only conceive Him as a Being infinitely great and infinitely good. This last quality of the Divine Nature inspires me with such confidence and joy, that I could have written even a miserere in *tempo allegro*.

—HADYN.

It is not the necessities of life that cost much, but the luxuries; and it is with the major part of mankind as it was with the Frenchman who said that if he had the luxuries of life, he could dispense with the necessities. Mere living is cheap, but as the hymnologist says, "It is not all of life to live."

MIRTH.

"A little nonsense now and then
Is relished by the wisest men."

Is life worth living? That depends upon the liver.

THERE is a good reason why a little man should never marry a bouncing widow. He might be called a widow's mite.

BEFORE the wedding-day she was dear and he was he treasure; but afterward she became dearer and he treasurer.

CHARLIE's father wished to find out his son's bent, so he asked—"Charlie, what are you going to be when you grow up?" "Going to be a *man*," came quick as a flash. "Isn't that a good thing to be?"

"COLONEL," said a man who wanted to make out a genealogical tree, "Colonel, how can I become thoroughly acquainted with my family history?" "Simply by running for Congress," answered the Colonel.

A WIT was awfully bored by a stupid fellow who persisted in talking to him on natural history. "There's the oyster," at last said the bore; "what's your notion as to the idea that the oyster is possessed of reason?" "I think it may be true," said the wit: "because the oyster knows enough to shut his mouth."

"MA, is Mr. Thompson respectable?"

"Certainly, my child. Why do you ask that question?"

"Because he wears such poor clothes."

"You should not judge persons by their clothes; none but silly people do that."

"Then everybody's silly—ain't they, ma?"

WHEN lovely woman's feet are sevens,
And such a size her soul abhors,
What does she then? Why, gracious heavens!
She squeezes them in No. fours.

ONE of the subscribers to the *Druggists' Circular* received the following message from a patient: "Mr. B—: Will you kindly give bearer one bottle of laxative water? I think the doctor said it was hungry John's water, or hundred yard water. Anyhow, it sounded like it." The reader probably knows what was meant.

WHEN Dubufe's celebrated painting of Adam and Eve was on exhibition, Mr. McNab was taken to see it, and was asked for his opinion. "I think no great things of the painter," said the great gardener. "Why, man, Eve's temptin' Adam wi' a pippin of a variety that wasna known till about twenty years ago!"

A PORTRAIT.—

The face it was as round
(The truth to tell I'm bound)
And expressionless as is the full and shining moon;
The eyes look like two holes
Burnt in blankets by two coals,
And the mouth looks like a Dutchman's when singing out of tune.

AN old bachelor was recently heard saying to a young lady: "There is more jewelry worn nowadays than when I was young; but there is one piece I often admired which I don't often see now." "What is that?" asked "Miss." "A thimble," was the reply.

"No use to take your medicine," said a patient to a doctor, "for as I never expect to get well, I could not pay you!" "Had you intended to pay me?" the doctor asked. "Yes, sir." "Well, then, I'll change your treatment. It's a hard matter and somewhat unprofessional, but as you entertain some idea of paying me, you'd better take a little of this harmless powder instead of the dose I had mixed for you."



"BIRDS OF A FEATHER."



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

HOPE'S HEART BELLS. A Romance.

By Mrs. S. L. Oberholtzer, author of "Violet Lee," etc. 12mo, pp. 282. J. B. Lippincott & Co., Publishers, Philadelphia.

A story of Quaker life and of a Quaker girl whose sweet name furnishes the title of the volume, and whose sweet character illumines the incidents which Mrs. Oberholtzer has woven together in a style that clearly shows that her heart was in the work of her pen. The chief locality of the story is Chester, Pennsylvania, and rightly chosen, because the author is familiar with the place, and her descriptions have a vivid coloring which would not belong to them did she invent a place, after the manner of the average novelist, which has no real existence. The characters are young people for the most part educated and refined, all but Hope, of city breeding, while the Quaker maiden is a farmer's daughter. The interplay and byplay of disposition, the humors and caprices of the half-dozen associates are well exhibited in a series of incidents that are entirely natural. The writer has a motive, too, a laudable one, which we cordially approve, that of illustrating pure moral principle and generous sacrifice. Hence the tone of the book is high and refined, but not in any respect prosaic or preachy. It is the kind of story we are willing to have our young folks read, and should be glad to have such books displace the trash which fills the average bookseller's shelves.

WHENCE, WHAT, WHERE? A view of the Origin, Nature, and Destiny of Man. By James R. Nichols, M.D., A.M., author of "Fire-side Science," etc. Fifth edition, revised. Cloth. Price, \$1. Austin, Williams & Co., Boston.

We are informed by an introductory note that this volume was privately printed by the author for distribution among his friends; and that a demand outside of this friendly circle arose, which caused it to be placed in the hands of a publisher. The present edition has been carefully revised, and probably more succinctly represents the views of the writer. We do not find that Dr. Nichols has made any great discovery in the mysterious realm of his inquiries, but that he has added some personal opinions to the great mass of thought, now circulating on the same line of topics, which here and there may be styled peculiar or original. He considers

the material substance of man, from the point of view of the scientific observer; and in his pages devoted to that side of the subject furnishes us with nothing new; and in his treatment of the "Spiritual Man" he takes the view that it is next to impossible to analyze spiritual phenomena satisfactorily, or to obtain positive results in regard to the relations subsisting between spirit and body or matter, and that this is not at all remarkable, because there are many things in nature which are of common occurrence taking place under our eyes, and yet are entirely inexplicable. A considerable number of the movements and changes in the physical world which are recorded and well-ascertained facts, are still lingering in the domain of mystery. As a thing we know as much of spirit as we do of electricity. Nothing is ever destroyed in nature; energy is never lost, so why should that settled principle, spirit, or what not, which infuses and inspires and actuates everything having life, be not something of, analogous yet higher character? He seems to use the term soul, mind, and spirit as identical in his illustrations of the intelligence of feeling displayed by animals. We can not agree with him in some of his views relating to religious growth, especially his statement that hope, love, and joy were emotions almost unknown in a savage and ignorant state of society. We do not think that the brief references which follow that statement, supplemental or probative of it. Dr. Nichols' moral speculation is not of a very unusual, rare kind, and he does not theorize elaborately upon his premisses. He is far from solitary in thinking that the doctrines of Christ have suffered by the hands of his professed followers, even St. Paul contributing somewhat to the credal confusion which afflicts society. He shows, however, a warmth of feeling in a general acceptance of the moral teachings of Christ, and does not regard the miracle business as of very great importance in the practical consideration of the origin of Christian theology. He trippingly discusses the structure of the human brain without giving much light upon it to the reader, and takes occasion to allude to Phrenology in so careless a fashion, that one who is acquainted with the principles of cerebral localization as advocated by physiologists of the highest standing, will be likely to charge him with ignorance or an inveterate prejudice. We would respectfully refer him to the treatises of Broca, Ferrier, Goltz, Munk, Vogt, and others.

ANTI-TOBACCO. By Abiel Abbat Livermore, with a Lecture on Tobacco by Rev. Russell Lant Carpenter, and on the Use of Tobacco, by G. F. Witter, M.D. 16mo. 50 cts. Roberts Brothers, Boston.

This recent addition to the list of cheap handbooks published by the above firm contains a considerable amount of information on the nature and properties of tobacco, and the extent of its use in various forms. It is, as indicated by the title, an attack upon the tobacco habits of people and a vigor-

ous argument founded upon the premisses supplied by the street, the home, the dram-shop, the hospital, and the cemetery.

PUBLICATIONS RECEIVED.

THE MAGAZINE OF AMERICAN HISTORY, now edited by Mrs. Martha J. Lamb, the author of the "History of New York," has made a decided advancement upon former editions; it is not only enlarged in typography, but the character of its articles and illustrations is much more inviting than formerly; it has become something more than a mere compilation of data. Published by the Historical Publication Company, New York.

THE CRITIC AND GOOD LITERATURE have been associated, and now appear as one publication. This endeavor to combine the excellent features of these publications as they were formerly, may not be a difficult matter, provided their old editors can maintain the interest which they previously exhibited.

AMERICAN JOURNAL OF INSANITY for January is a voluminous number; it contains a report of the proceedings of the Association of Medical Superintendents, which is of course the chief feature, although two or three articles written from the specialty point of view add their value.

THE ART FOLIO deserves consideration; has a collection of exceedingly fine engravings, in themselves representative of eminent subjects, which are interspersed with some pleasant miscellany and other matter more or less instructive. Messrs. J. A. & R. J. Reade, of Providence, R. I., are the publishers. The subscription price, \$3, is decidedly low, if the number which is now under observation is but a specimen of the monthly parts to be issued in the course of the year.

COOK'S EXCURSIONIST for January contains a very inviting series of tours for the consideration of those who would see something of the world on the other side of the "big pond," or would visit different parts of our own land. A great deal of general information regarding the world's geography is contained in this large and solidly printed circular.

OUTING, AND THE WHEELMAN for February is at hand. Here we have the result of another combination recently made by the publishers of these two monthlies.

PLAIN FACTS ABOUT ARKANSAS AND TEXAS, illustrated with diagrams. Rand, MacNally & Co., Chicago. A pamphlet of interest that will interest people of migrating and colonizing tendencies.

BEAUTY, COURTSHIP, AND MARRIAGE, by C. H. Bliss, Salt Lake City Utah. The author throws out some solid truths in the course of his talk, and gives some practical advice.

DUTIES AND DANGERS IN LIFE, COURTSHIP, AND MARRIAGE, by Edward P. Jones. A pamphlet similar in its nature to the foregoing, only a little more so.

OGILVIE'S POPULAR READING. Number 1 contains several complete stories of popular authors. Price, 30 cents. J. S. Ogilvie & Co., New York.

LIPPINCOTT'S MAGAZINE for February opens with a paper on "Old Germantown," its early history, prominent figures, and characteristics, with illustrations, from drawings by Pennell. "French Château Life, Past and Present." A very pleasing account of "A Pilgrimage to Sesenheim," where Goethe, while a student at Strassburg, became enamored of the fair Frederike, whom he jilted and immortalized. "On a Glass Roof," by Rowland E. Robinson, is an amusing description of winter fishing in Vermont. Dr. Felix L. Oswald has a second paper on "Healthy Homes," and other things, make the magazine as usually attractive.

THE OYSTER EPICURE. A collation of authorities on the gastronomy and dietetics of the oyster. 18mo, pp. 161. White, Stokes & Allen, New York. This is a little treatise which those who are fond of the common bivalve will appreciate. The authorities quoted are pretty generally in agreement with reference to the value of the oyster; as a factor in our diet and as far as they go read pleasantly. But should not the compiler have mentioned the Mosaic opinion, although it is decidedly the other way and prescribes their use as a thing unfit for the human stomach? Water constitutes eight-tenths of the oyster; hence, they are deemed easy of digestion; but it is a fact that cooking, by almost any known process, impairs their nutritive quality, for the reason that it coagulates and hardens the little albuminous matter they contain.

THE BUFALINI PRIZE. — A circular received from the Bureau of Education, Washington, that competition for this prize, 5,000 lira — \$965, is open to all nations. The object is to show the superiority of the experimental over the *a priori* method of reasoning. The thesis offered in competition must be written either in Italian or Latin, and sent to the Royal Institute of Higher Practical Studies, Florence, Italy, before Oct. 31st, 1884.

VICK'S FLORAL GUIDE for 1884 is an elegant production; its fulness of detail and illustration renders it useful to the gardener and lover of flowers, and also to the student of botany; while the very liberal terms on which selections of seeds and plants from the catalogue are offered, must captivate the housekeeper who has a patch of ground, or a sunny window-sill. James Vick, Rochester, N. Y.

AMERICAN INSTITUTE OF PHRENOLOGY.

Institute Extra.

Devoted to the Interests of the American Institute of Phrenology.

No. 13.]

FEBRUARY.

[1884.

THE INSTITUTE.

THE act incorporating the AMERICAN INSTITUTE OF PHRENOLOGY was passed by the Legislature of the State of New York, April 20, 1866, with the right to hold real estate to the amount of one hundred thousand dollars; to collect and keep for public exhibition a museum of busts, casts, skulls, and portraits illustrating Phrenology and Physiology; to instruct pupils, grant diplomas, etc.

OFFICERS:

EDWARD P. FOWLER, M.D., *President.*

NELSON SIZER, *Vice-President.*

HENRY S. DRAYTON, A.M., *Secretary.*

By action of the Board of Trustees, FOWLER & WELLS have been appointed financial and business agents. All communications should be addressed

FOWLER & WELLS, 753 BROADWAY, NEW YORK.

CLOSING EXERCISES OF THE SESSION OF 1883.

OPENING REMARKS BY NELSON SIZER, VICE-PRESIDENT.

STUDENTS OF THE CLASS OF '83: We have come to that point where our ways are to divide. We have dwelt together for a time pleasantly, and I trust profitably, and we have reached the close of our class instruction. We have come to the parting words, to the day of separation. According to our usual custom on occasions like this, those who have been the instructors give a few parting words which they may think appropriate. Mrs. Wells will first offer us any suggestions which she may desire to express, and then others will follow, and afterward the students will be invited to speak if they wish to.

MRS. WELLS.

I am happy to meet the students once more, but I am sorry it is the last time. In the history of Phrenology in this country you have had but hints, the merest outlines of its trials, for they were too numerous and many of them too small to have note made of them for a complete story. The persecutions of the early phrenologists (the founders) occurred on every occasion

and even without occasion, untruths with only a vivid imagination for a foundation, and the same was true in America, but some of its advocates in this country early came to the resolve to part after the man who continued on his way and did not stop to contend with the curs which rushed out from every cottage and barked at him, but let them bark while he advanced, and very soon overtook and passed the man who started first, but lost time in fighting them. The earnest presentation of truth like a locomotive rides over errors that try to prevent its advancement.

In reading the life of George Combe, we see how he grew into a lecturer on Phrenology. He had an inquiring mind, ever ready to accept truth wherever found. Consequently, when it presented itself, he readily apprehended and gratefully accepted it; the natural result of which following, namely, application from various sources for explanatory information on the subject from him, compelled him to reflect and study closely and eliminate errors which might intrude; and thus he qualified himself to so present truth that it could be understood and accepted. When he obtained specimens (casts) from London illustrative of the subject, he had so many calls upon his time that he could not

always give it, and his sister, having informed herself, took his place, entertaining and explaining in his stead. Finally he formed a resolve to appoint certain times to meet inquirers and lecture to them. In February, 1822, Mr. Combe announced his first course of lectures, to begin in May and end in July. In that same year he practiced the art of dissecting the brain according to the plan pursued by Dr. Spurzheim, by which mode of dissection he was so much impressed at the first lecture he heard by Dr. Spurzheim. With his usual positiveness he overcame most of the difficulties.

His first lecture was given May 19, 1822, to an audience of about seventy attentive listeners, his second to sixty-five, his third to thirty-two. He had issued forty-four tickets, three of which were given away. He had expected between twenty and thirty, and averaged between thirty and forty.

In his first public course the following winter he had nineteen. When I heard him in Philadelphia sixteen years later he averaged 450 at \$5 a ticket for the course. That was an advance from the nineteen of his first course, and he appreciated it. Having been himself one of the opponents, ridiculing doubters of the science, he could understand the same qualities in others, and addressed them accordingly. Opposition sometimes came in such shape as rendered it necessary for him to defend himself, which called out his interest in the subject to the degree of enthusiasm, yet he was prudent and gentle and dignified withal, and did not neglect his business duties, consequently his enthusiasm had a healthy growth.

He did not drop everything else and go to lecturing, but, responding to the request of those who desired his teachings, he *grew out of* his former calling into the new one, where his affections had already become fully enlisted, and that was permanent.

Nor did he seek the new calling for the sake of the pecuniary part of it, for his legal business and other enterprises were sufficient to furnish his requirements in that respect and yearly increased his receipts; but loving Phrenology as he had come to do under the circumstances, he could do no less than lecture on it, and his previous education and training helped him to succeed as a lecturer, and with that came great reputation, and, of course, augmented responsibility. As George Combe did, so have others done, namely, taken one step at a time and perseveringly continued to advance; and thus success comes to all who win it. Our lifetime is made up of but one second at a time, but, continued, those seconds amount to many years. Some of the years may be hard to bear, but those trees that grow while exposed to rough

weather and hard winds are said to be the toughest.

In the United States Dr. Caldwell gave the first phrenological lectures in 1821, and in the winter of 1821-22 began his annual lectures, which continued many years.

Dr. John Bell republished in Philadelphia George Combe's essays on Phrenology, said to be the first books on Phrenology published in America. In 1823 Prof. John D. Wells, of Bowdoin College, in Maine, commenced an annual exposition and recommendation of Phrenology to his class. He had heard Phrenology taught by Gall himself, and probably about the same time Dr. Caldwell was a pupil of Dr. Gall's.

A Phrenological Society was formed in Paris in 1831, containing among its members men of the highest respectability in medicine, law, and philosophy, with some members from both chambers of the Legislature. At the time of its formation it consisted of 110 members, sixty-one of whom were physicians. It held monthly meetings, and annually a general public meeting to commemorate the death of Dr. Gall. In 1833 a letter to the Edinburgh *Phrenological Journal* stated that the French Government was then seriously contemplating the establishment of the chair of Phrenology. In 1834 the King expressed his opinion that the application of the principles of Phrenology to criminal legislation would render a great service to mankind. In 1836 Broussais, Professor of General Pathology in the Faculty of Medicine, delivered a course of lectures on Phrenology in the University of Paris. The crowds to listen to him were so great and interrupted the lecturer preceding him to the extent that it became necessary to bolt the door and keep out those who desired to come early in order to secure choice seats. It was during this same year (1836) that the Royal Academy of Medicine discussed the claims of Phrenology in four sittings; and, although there were really no adverse opinions expressed, it was thought best not to adopt it till it was established on a more solid basis. Time had been when Napoleon was ruler that even Cuvier, in making out the report of the French Institute, so worded it as to conceal his real views of the merits of the discovery of Gall and Spurzheim. This was the result of Napoleon's contempt for anything foreign. He reprimanded the Institute for accepting teachings in Chemistry by an Englishman and Anatomy by Germans.

Vimont, an eminent French anatomist, an unbeliever in Phrenology, set himself to investigate the subject in order to refute its teachings, and became so earnest to inform himself thoroughly that he had at one time 1,500 animals, quadrupeds, insects, birds, etc., on his private estate in Caen, France, studying their peculiar character-

tics and dispositions. The result was what we might expect from a conscientious investigating opponent. He became a warm advocate, and wrote an elaborate and expensive work on comparative Phrenology.

Since that day Phrenology has found its way to the general public, and has become a guide to thousands in regulating their own conduct, and in exerting over children and others an influence which is effective, and, in value, above all price.

ADDRESS BY MR. DRAYTON.

MEMBERS OF THE CLASS, LADIES AND GENTLEMEN: I have sometimes said that what I have to say on occasions like this, is said with regret. The session always appears to be much too short for me, and I have no doubt it is the same with you—that you feel on this parting day, when you are now to vacate the chairs which you have been occupying for six weeks, that the session has been all too short.

It is no exaggeration to say that every class which has gone forth from the Institute has expressed very strongly this feeling of regret. And it has been exceedingly encouraging for us who stand in the place of instructors, for it has shown that the students were interested in the subjects that were discussed, and that their attention had not been something merely passive. You, like those of former years, came here for a purpose, and you intended to go through the course. Having paid your money, you determined that whatever might be the experience you would nevertheless grind on and go on until the closing hour. But should any one to-day complain and express dissatisfaction with the course and the result, he would be the first and only example of dissatisfaction or of disappointment on the unpleasant side. I observe that the feeling is on the other side generally with you, and that you feel as if you would willingly linger here to have further tutorage and suggestion, and to witness further illustrations of the principles of Phrenology.

Although, my friends, the session has been apparently brief, you will find soon that you have learned much. You might have been studying books on Phrenology and Physiology for years, but the six weeks' training here with its practical facilities has opened your minds to an understanding of the truths of human science in a way which has never been your experience previously. I take it for granted that you will confirm this statement, although you may leave with the idea that you have just entered upon the subject; that you have just begun to appreciate its breadth and length and height.

I should insist upon it, however, that you will carry into your future life, your business, your

profession, this feeling, and that you will be anxious and ambitious to know more and learn more of the truth of what you have been taught. The great want of those who after leaving this hall halted in their course and became lukewarm with regard to the work of Phrenology, is earnestness and ambition. Perhaps I might explain the action of some in this way, that having entered fairly into the domain of Phrenology, they saw it was so wide, so important, so comprehensive, that they were frightened, and, like the snail, drew back into their shells of caution and diffidence lest they should make a grave mistake; but through that hesitation they surrendered their purpose, they turned aside from the path of duty and neglected grand opportunities. I would have you fired by ambition—the ambition to do well; to disseminate what you know of the truths of human nature, of the verities of life.

It is unnecessary for me to say that this science of Phrenology is a wonderful thing; you have learned that already. You know its application to every department of human affairs. You know that you can use it whatever may be your vocation, and I wish to insist that you shall use it; for, by so doing, you will learn more and more concerning its bearing upon your own development and success. I would that some of you were fired by the ambition to achieve something new in the development of phrenological science and make a reputation for yourself as the discoverer of new facts or a new application of some law of Phrenology. There is abundant room for this. Every scientific man will say to you that the field is wide, that there are thousands of things which yet remain to be revealed; the magic hand of genius is yet to touch them and give them life and light so that they can be read and understood. There is abundant room for noble achievement in it, even with reference to the function and operation of each faculty and organ. There is one with us to-day who has contributed much toward the establishment of certain organs, and he will tell you that there is room for further observation, and beyond, a great unknown realm like that Pacific which unrolled itself to the eye of Balboa when he had ascended the mountains.

Do not fear to explore and observe, but first settle yourself well in what you know; establish and confirm what you have learned, and then do not fear to indulge your aspiration for more truth.

MR. SIZER.

Fortunately for us, our good friend, Mr. L. N. Fowler, who has for several years been laboring in England, is here, and will make some remarks.

MR. FOWLER.

STUDENTS OF PHRENOLOGY: One invention more is wanted—an invention to photograph the growing mind. We have the invention to photograph the growing body, and parents take great pleasure in having the photographs of their children taken every year or oftener, in order to see what changes are taking place in the body. I have had mine photographed some five hundred times to see the changes that occur; but I have never thus succeeded in finding out how fast the mind grows. The unfolding of the mind is a great process as well as a long one; it is one of great importance. We study more correctly when we take that into account; we teach and lecture with a more definite object in view, when we think we are helping minds to grow, because a thought can not be given to a child, a feeling can not be called out but what an impression is made, and that impression helps to enlarge mental conception, and the more elevated that thought or that impression, the more the mind grows in the upward direction. If it be only a basilar impression, then the mind grows only in the basilar channel.

You will find that in proportion as you understand nature that it is all one piece. Human beings are only a part of that piece. Begin with the spring and the child, the summer and the youth, the autumn and the man, the winter and retiring old age—in every way in which you choose to look at nature and at man, you will find that you get ample means of illustrating.

Some of you expect to make Phrenology a profession; if so, you have very many things to learn. You must have already seen that your own minds have changed considerably since you came here six weeks ago, and if you keep studying and using your time and mind to the best advantage—keeping your bodies in as good condition as you can, you will continue to grow in mental power. So take courage, and go on.

In your examinations be brave, but wise, and many a time you will hit a fact that the individual knows, but nobody else does. For instance, I told a minister here in the city forty years ago, "You delight to fight. When you were a boy you would get up from your table and fight for the fun of it." Well, they all said I was mistaken. I said, "I will leave it to the gentleman." Said he, "That is true; I used to get up from the table. They used to call on me, and I gloried in it. But," said he, "I am a preacher now; I keep that feeling under subjection. You don't know anything about it, but I do."

I want to suggest one or two points more. If you practice Phrenology, keep your heads clear, keep your heads clean. Don't smoke, don't chew, don't snuff, don't drink spirits. Just as

soon as you begin to put the poison into your system, it works unfavorably somewhere, somehow, and a man can not indulge in those things that are an enemy to the constitution or the mind without throwing it out of balance. All one wants is to have every power of the mind equal to the discharge of his duty honestly and in harmony with the other faculties of the mind.

I do hope that this class will do credit to the Institute. I have been looking for a number of years all through England for somebody to get into my boots. They are not large, but I have not found him yet. I hope there is some one in this class that can take the place of Mr. Sizer when the time comes for him to leave it; but take your own place, at least; make a name for yourself and supersede if you can any one that has gone before you.

But now that you know Phrenology, make it an earnest business. Keep up your studies, whether you want to make a profession of Phrenology or not, and understand mind and character more and more. Anything that you may do brings you in contact with others. Save a young man here, a young woman there. Give a hint here and there, and it will modify their whole life and character.

May God bless you. I hope you will have every occasion to be thankful that you came here to study Phrenology.

MR. SIZER'S ADDRESS.

When I think of saying anything further, my brethren—for now we are brethren in profession as well as according to the spirit and the flesh—I hardly know what I can say more after having given you ninety lectures of an hour to an hour and a half each. I have been talking to you with the head most of the time, and now when we come to speak the adieus, it seems to me that the heart comes to the surface. Now I wish I had said more and better things to you, and, like Paul's brethren, "Sorrowing most of all that I may see your faces no more."

Remember that each one of you carries potentialities that are immortal; remember that this session of this Institute has opened to you a door "on golden hinges turning"; that this session has introduced you to a field that is broad and rich—and not only broad and rich, but its harvests are for everlasting. You never can be the same that you have been; you never can look upon human nature again as you have looked upon it, "as through a glass darkly."

We had a clergyman pass through our Institute, and when he went back to his congregation he said they were all new people to him. They sat in the same seats, wore the same clothing, and had the same general form and outline—but

in all else, how changed! Some men whom he had formerly regarded as dry and worthless, he now looked into these same faces and they seemed luminous; others whom he had been inclined to regard with favor and confidence and affection, now looked to him selfish and debased, if not "sensual and devilish."

If one has occasion to mingle with men in secular affairs, Phrenology teaches him how to meet each man; how to call out that in him which is best; how to evade and avoid that in him which is not best or not suited to the occasion. Men who are to live among and act upon men—ministers above all—are the ones who can most profit by Phrenology. We have with us one who expects to stand at the legal bar and claim justice for the righteous and for the wicked. His knowledge will help him to know who ought to be defended and who ought to be condemned. We have with us two at least who expect to "stand between the porch and the altar," the profession most sacred and most venerable; the profession which calls for intimate knowledge of human passion and purpose—hope, fear, aspiration—and to them at least Phrenology should be as a new right hand, as a sharp discerning eye to look through and inspect the purposes and hopes of human nature.

You shall find many a poor, broken-hearted, sad soul needing encouragement and assistance, and when you see the small self-esteem and large caution, and the small base of brain which ought to, but in this case can not, brace up character, you will know how to address yourself to such persons and supplement their weakness with your strength.

Those of you who practice Phrenology as a profession, remember that there is no pursuit nearer to the welfare of the human race than that of the upright, intelligent, practical phrenologist. If there is an outreach of any faculty for that which is good, or a dread of that which is evil, an opportunity for advice is opened which may be the word fitly spoken that shall save a soul from death. Theology relates to one branch of human life—the moral; that part which should govern all the rest; that part which by its constitution is the highest of all; the rest, of course, stands high in importance; but those who know only of the moral nature and of the general fact that men are depraved, it does not give them all they ought to know. Phrenology would tell a clergyman, as it tells the phrenologist, who has excessive passion and selfishness; who has qualities that lead him downward, and wherein his temptations abound. It is easy to preach to good people, but how shall we teach the bad to live in harmony with the law, human and divine? Phrenology lays its hand on every faculty—the passions, the intelligence, the memory, the genius; it knows all the sources of temptation;

can study their strength, and see the dangers which environ men. I have seen men who had strong elements of piety, who, when in the society of those that were pious and were enjoying the minister's discourse, would go up like a balloon into the realm of hope and faith and joy; the moment they went out among the attritions of selfish business, they became tempted through the selfish feelings, and there was a continuous war between the house of David and the house of Saul; and neither their minister nor any other person in the church seemed to know what was the matter with the poor brother, because he lived in two atmospheres—sometimes in one and sometimes in another. When he was under the influence of the moral training, it seemed as if he went heavenward like a rocket, rejoicing; he was sincere as any man living. When he got over on the other side and temptation came in like a flood, it swept him before it; and then the minister used to preach and set forth in minutæ what a man of God is; how clean and holy and upright—how prudent and guarded and careful and tender must be his whole life—and the poor fellow accepted it all, but when he stepped out of the atmosphere which kept him full of holy feeling, he went to the wall; then he thought that all his good intentions and hopes were utterly valueless.

Now, I take it that our phrenological friends who are to be preachers will be able to understand the man so organized, and the full scope and reason of his temptation; will know how, thus understanding what it is that takes him away from the truth, to help him in the right path; and, if I may say it, know how to excuse and accuse and do no harm. In short, there is no relation of life in which Phrenology—the comprehensive science of human nature—has not a beneficent and a profitable word to say.

We have now a very pleasant duty, and it is to confer on each of the students the diploma of the Institute which gives the title of brotherhood. Henceforth we are one family; henceforth our interests are more or less one, our hopes and aspirations always one. We shall follow each of you as you go to your homes, as you go out into the phrenological field, as you teach these great truths to your fellow-men who are hungry for them. We shall follow you with hope and faith, and such encouragement as we may give; and you will not hesitate to ask us for any assistance we may be able to render. If you keep us advised as to where you are, we may sometimes have opportunity to put you into channels of success, as there are frequent inquiries for lecturers in every part of the country.

After the delivery of the diplomas, accompanied with affectionate and pointed remarks to

each, the students were called upon, and responded as follows :

FRANK B. KNOWLES.

RESPECTED INSTRUCTORS AND CLASSMATES : Six weeks ago we met here as strangers. To-day we part as friends. I trust the friendships will not be suffered to decay. Especially may this be true of those connected with the management of the Institute. The memory of their counsel and kindness will remain, and the heroic example of the founders of Phrenology in America will be an incentive to do and dare when difficulties are thickest.

In regard to this course I may say, I consider it a good investment in all respects. I never before learned half so much in the same length of time. I would not part with what I have learned for many times its cost. I believe it will add ten years to my life, and make it all much more useful. The more I study, the more I am convinced that no other subject investigated by man covers so wide a field, and has so practical an application as this. Phrenology and the collateral subjects which are brought in close relation to it, touch every phase of human life.

And now, fellow-members of the class of '83, we are to go out with the diploma of this, the only institution of the kind in the world. And it therefore becomes our duty so to use the knowledge in our possession, as to bring honor to the science and promote its growth.

The science of mind is as boundless as the universe, and life, as I look at it through the experience of the last six weeks, seems many-fold wider than ever before.

I was born to love Phrenology ; my father read the *JOURNAL* several years before I was born, and it has always been within my reach when at home. The choicest of Fowler & Wells' publications are always at hand also. I am grateful to-day for the influence on me of my father's phrenological study.

In closing, I wish to thank all connected with the Institute for the many favors received at their hands ; and express also my best wishes for the prosperity and long life of each of the members of the class.

ALFRED H. WAIT.

DEAR PROFESSORS AND FELLOW-STUDENTS : There is so much I want to say that I can not say it all. My mind is now a little like my stomach, it is dyspeptical. I have heard so much and I have tried to do justice to it all, that it is a little over-worked, and my opinion is that it is going to take about as much comprehensiveness to straighten it out as it did to take it in : I don't want to think, and I can not think, that this is the last

time we are going to meet. My faculty of Spirituality has a great stimulus in the social faculty, Adhesiveness, and I honestly believe that undisturbed friendships on earth among equals will be continued in eternity, even though we do not meet again until eternity begins ; I have that faith just as much as I believe in my existence, and it would be a source of permanent distress if I had to believe otherwise ; I must have friends, and my best friends I must have hereafter, or it won't be a happy home for me. I never have had such a sense of responsibility as I have now, and I expect that sense of responsibility will grow on me ; but in expressive and not very classical language I must say, that in all due deference to the magnitude of the subject and what capacity I have, it does seem as if I had bitten off a little more than I can properly masticate ; I can not help but acknowledge it. I hope that as nothing was made in vain, our coming here was not in vain ; and that our words and actions, our deeds and theories, will prove that we have not been made in vain, or come here in vain ; I hope that we will all do justice by what we have learned about the subject we have studied ; it is large indeed—the more we get over, the more it spreads ; I expect that it takes a great deal of persistency and energy to stick to this calling in its active phase ; but if it takes any more persistency and any more mulish obstinacy to do ourselves credit in the professional life, than it took for me to get here, I should give it up now, but I don't think it. As for our preceptors here, in leaving them I tender my deepest love and highest respect ; I respect them, and can only appreciate them through my reason and love together ; with all there is in me I respect and love them, and I expect always to entertain those feelings toward them. If after this evening I never meet them, or fail to meet any of you upon earth, I hope to grasp your hands on the other side of Jordan.

J. W. LEININGER.

RESPECTED TEACHERS AND CLASSMATES : It is now eight or nine years since I first became acquainted with Phrenology. Ever since that time I have longed to possess the information imparted by the American Institute of Phrenology. If at any time I shall feel prouder than another, it will be when I remember that German blood flows in my veins, and that I can claim kinship with such men as Gall and Spurzheim, and am permitted to work for the same great cause.

Canada has been overrun by fortune-tellers and phrenological trumps, until the term Phrenology is, in many localities, synonymous with charlatan, mountebank. But I do not despair. The people want Phrenology, and if they could be

assured of the honesty and skill of the phrenologist, his success would be certain. Truly "the harvest is great and the laborers are few," and we are ready to exclaim, "Who is sufficient for these things?"

But the sun of Phrenology has arisen, and is already cheering the eastern sky with its ruddy glow and dissipating the mists of ignorance. The time will come when Phrenology will be the guiding star of the world. Let us deem it a privilege to be permitted to work in this great field. Some of us have two talents, some have five. We are accountable only for the use of what we have.

My thanks are due to all the teachers for their valuable instruction and their kindly interest in our behalf; also to my classmates for their uniform cordiality and manliness, and we hope to hear of them often through the columns of the JOURNAL.

MISS F. R. ADAMS.

TEACHERS AND FELLOW-STUDENTS: As the tiny plant-pod holds within its gentle clasp the germs of a thousand plants which, falling in fertile soil bring forth, "some thirty, some sixty, and some an hundred fold," so we, gathered within this class-room, shall soon be released from the tender clasp of our *Alma Mater* and go abroad to the snowy fields of the north, the rugged hills of the east, and the vast prairies of the west. The soil is abundant. The fields for phrenological work are boundless; the showers of popular opinion are ready to moisten the phrenological seed, which has grown to ripeness under the nurturing care of our competent teachers.

This is no weak task. It takes health of body, strength of purpose, and vigor of brain, to prosecute a work fraught with such great results.

As *man* was the crown of all God's perfect works, so is *mind* the coronet, the *diadem* of man. The jeweller cuts and polishes the ruby and other costly gems. But the diadem of the universe, the human soul, must be cut and polished, if done properly, by the phrenologist.

The mother, with all her tender care, has as little idea of the immortal jewels which she possesses (and by her every word and act is shaping and brightening, or marring and dulling their native lustre) as a field laborer would understand the value of a "brilliant in the rough," which, should he undertake to cut at all, would be rendered almost worthless by his heedless manipulations.

And to-day thousands of mothers are inquiring, How may we foster and develop the young human beings, endowed with these divine attributes? They care for the comfort and supply the wants of their little bodies, but the *mind* is often starving for truths that should be taught,

and yearning for sympathy that is not given, and when we understand the necessities of the mind as well as those of the body, when Phrenology and Physiology walk hand in hand, this may be done. And God speed the day when the truths of Phrenology shall be taught throughout the length and breadth of this goodly land, when not only the physical and intellectual, but the moral and spiritual nature of man, the culmination of his glorious God-given faculties, shall receive the instruction due to their importance.

We are placed in this world for a *purpose*. True and efficient work always tells. Let us be strong, earnest, zealous, and active workers in a cause so important to all.

Teachers, I thank you for your wise counsel and instruction, and for your earnest efforts to promote the cause you have espoused. May you be prospered in health and mental vigor.

Classmates, I thank *you* for your kindness to me a stranger in your midst; for your consideration and gentlemanly courtesy. Should this be our last earthly meeting, let us be cheered by the thought that, although we now sever the connections that have been so pleasant while we have tarried here for the promotion of our mental education, we may, when we have put on immortality, assemble for the perfecting of our spiritual education in God's great class-room, our home of many mansions.

J. C. OESTERGARD.

DEAR PROFESSORS AND CLASSMATES: At this sad hour of parting I have little to say, certain that I could not well express myself were I to try. A few years since a friend of mine who had learned something of Phrenology gave me my first definite thoughts on the subject, and I thought perhaps the science is true, yet I felt a doubt if it would be right to draw the curtain and reveal everything of a person's character and disposition to himself or to others; for, if a man were born with a bad disposition, how could he be accountable? It seemed to me that it would be cruel to reveal that which would be unfavorable, and thus I dismissed Phrenology for the time, thinking I could get no good out of it, and would have nothing to do with it. About two years since I met Dr. B. F. Pratt, a graduate of this Institute. He was lecturing on the subject, and, in consultation with him, he advised me to consider the subject of Phrenology, and on that account I am here.

When I was a boy in my native country—Denmark; but I can not mention the word home, to me it means everything, and yet I have none. No one knows the definition of that term so clearly as he who is absent; the distance seems to strike an agonizing blow.—In that old home

as a boy I read a story of an Eastern prince, who on his death-bed was surrounded by his twelve sons. He called them in to give his last advice; and, handing to them a bundle of faggots or sticks, asked them to break them. They tried in vain. He bade them to undo the bundle, and told them to break them one by one, and it was easy enough. He then said, "You are as a bundle of faggots, and as long as you are in union, no power is strong enough to separate you; as soon as you break your bond of union, you will be overcome and fall a prey to your enemies." I think this advice is good for others besides kings and princes; it holds true among phrenologists. If we want to do anything, we must do it not by working apart, but by working in unison. Let us work toward the one thing—the benefit of humanity, and to be together as much as we can in spirit if not in body. The field is broad, yet we have a centre. There is a home for Phrenology; we have it here, and let us remember where our home is. I think we should do whatever we are able to build up the cause, to shed honor upon the science of mind as revealed by Phrenology.

I conclude by tendering my thanks to my teachers and my classmates for the pleasant time I have had with them.

—
M. E. LISCHER.

ESTEEMED TEACHERS AND CLASSMATES: To me this grand and ennobling study, Phrenology, is as yet in its infancy; but I am delighted at the prospects which it affords in studying the attributes of our great Creator of Nature and of ourselves.

The acquaintances here formed have been of the most pleasing character and they will hold a lasting place in my memory.

—
E. M. LOCKARD.

The time has come, teachers and classmates, when we as a class must say our farewells. Many of us have looked forward to this day with a feeling of regret that the time of parting has come, for we know that as a class we shall never meet again to receive the instructions of the able professors of the American Institute of Phrenology. Now that the instructions have been received, we are expected to go into the world as teachers and disseminators of the truths we have been taught. Let us go forth with a determination to make Phrenology what it is—the science of sciences.

I can not say yet what my plan of work will be, but shall endeavor to waste no time, knowing as I do the value and importance of Phrenology.

My best wishes I tender to the students for their success, and my thanks to our worthy teachers.

—
A. D. PERRY.

WORTHY TEACHERS AND CLASSMATES: In 1880 I thought of attending the annual course of lectures at the Institute of Phrenology, but the time came and went, and I was obliged to let it go until 1881, but when that time came I was closely confined to work, and finally concluded to wait until the next year, 1883; but then I was as busy as ever, and that in connection with the thought that only superior minds could learn Phrenology, caused me once more to give up the idea of coming. Well, to make a long story short, last September the desire to attend the lectures renewed itself as strong as ever. So I made up my mind that I would come anyway in spite of everything, so that I would not have this question to decide every fall during the rest of my life. And I came, contrary to the wishes of my friends, and determined to learn what I could. Some of my friends told me that I was a "crank" on Phrenology, and I half believed them, but resolved at any rate to find out the truth or falsity of the subject for myself. And am I sorry for coming? No, I am not. For when I came I only expected to learn fundamental principles, but I have learned more, and now know that I can get a better idea of a person in five minutes than I could before in a year. And when I go home I intend to convert some of those individuals that called me a "crank."

We can discuss scientifically the characteristics of any nation or individual, and tell why they are as they are. We now possess abilities which will enable us to cope, far more successfully than before, with mankind in our public and private life. And lastly, we can defend Phrenology. Like graduates of colleges and scientific schools, we now have the theory, and what we need is the practice.

It has always seemed strange to me that learned men will object to Phrenology and oppose it as they do, when a good phrenologist can read a stranger's character; in fact, he often knows the man better than the man knows himself, and in what business he will succeed best, what are his weak and strong points, and why he does as he does on certain occasions; most of which to the man himself is a mystery.

I would say to those that are undecided about attending the lectures, come by all means and you never will be sorry.

I do not intend to enter the lecture field; I came simply to obtain the advantages referred to; but one thing is certain, I shall never be ashamed to be called a believer in Phrenology,

and will defend it to the best of my ability at every opportunity.

By coming here for instruction, we come to the headwaters of Phrenology in the world; some of our teachers have had over forty years' experience, and what is more, they are in earnest in all that they do and say, and their lives attest their faithfulness and integrity to their chosen profession. They have done everything to make our stay while here pleasant. I now go home satisfied with having attended this course. Single lectures have been of unknown value. The diet question, for instance: we now know what is the best food to eat and why it is the best. Other subjects are of equal importance.

I now bid you all farewell. We have passed a pleasant time together, and I hope that we all will be a blessing to the world, and an honor to the subject which we represent.

EDGAR A. DAVIDSON.

TEACHERS AND FELLOW-STUDENTS: I have for some years felt a great desire to attend a course of lectures at the American Institute of Phrenology, and at last my wish has been gratified.

With the result I am very well satisfied. Our teachers have taken great pains to instruct us, and I trust that we will all do our very best to carry out this noble work. I intend on leaving to go into the field of phrenological labor, and though I do not expect to succeed as well as some of the preceding students, yet I hope by God's help to be amply repaid for my studies, and that I may, in my small way, help to advance the knowledge of the great and useful science.

We may never meet again, but I trust that we shall never bring discredit upon the noble Institute from which we have now graduated; but that we will all work with a willing heart to benefit our fellow-men by the knowledge acquired here.

To our respected teachers I tender my warmest thanks for the trouble they have taken, and the patience they have shown in imparting this knowledge to us. And to my classmates I would say, that I shall always remember the kindly manner in which they have ever treated me during my stay here. And may the blessings of the great Teacher of all men rest upon you forever.

REV. WILLIAM R. SCOTT.

PROFESSORS AND FELLOW-STUDENTS: Among the many subjects which demand the attention of all studious minds, few can be of greater importance than the study of Mental Philosophy; both because it gives a man a better understanding of himself as a citizen of two worlds, and also of those with whom he is to associate. It is

a well-recognized principle among scholars, that in order to have an opinion that is worth anything upon any subject, one must look at it from every stand-point. There are to-day two ways of studying mind. One is that method which is set forth by the metaphysicians, in such masterly works as "The Outline of Man," by President Mark Hopkins, of Williams College; "The Human Intellect," by President Porter, of Yale. The other method is that of Phrenologists, so well expounded in the works of George Combe. To have a well-rounded knowledge of the subject of mind, as it stands to-day, one must therefore look at the subject from both of these stand-points. Each method has its advantages. The phrenological method is, however, the simpler and the more practical method, and is therefore the method by which we should begin the study of mind, following it up by the psychological method. The phrenological method of studying mind has been expounded to us ably and well during the six weeks which we have spent together in this institution. It remains for us to broaden out our knowledge of the whole subject of mind by now continuing our study of the subject by reading standard works on Phrenology, and then following it up by reading the standard works on metaphysics, testing the teachings of both methods by observation and practical experience, and being led, as I believe, toward what the drift of our time seems to point in the near future, namely, a system of metaphysics which will incorporate within itself the best results of the study of mind by both the phrenological and the ordinary psychological method.

HOSEA MANN, JR.

HONORED TEACHERS AND FELLOW-STUDENTS: Soon after the publication of "New Physiognomy," my mother purchased a copy. Its pictures pleased my childish fancy, and as I grew older I became much interested in its reading matter, and the subject of character-reading which it so ably discusses.

This turned my attention to Phrenology, and I have long been a believer in it and its utility, and long ago I promised myself that some day I would attend the Phrenological Institute. And now, rejoicing in the realization of my boyhood's dream, I can truly say that, unlike most dreams of youth, the realization has been equal to the expectation.

Often have the words of Hamlet, "There are more things in heaven and earth than are dreamt of in your philosophy," been sounding in my ears, and each time with a new meaning and stronger emphasis, as lecture after lecture has touched some secret spring of human nature,

and the "eternal waters of truth have gushed forth."

Although I may be pardoned for confessing that the desire to learn to read the motives and intentions of those around me, so far as concerned myself in my intercourse with the world, was perhaps the most powerful motive that prompted my coming here; I want to tell you what has become a firm conviction in my mind, that were I to go forth from your institution to-day, and not be able to discern the character of my neighbor one whit better than before, I should yet feel well repaid for what attention I have given to Phrenology. Do you ask wherein? I answer, "It has interpreted myself to myself." My own nature and disposition have been the greatest of mysteries to me. I have often perplexed my brain to know, why it is that at times life seems so bright and sunny, and Hope almost sees the glimmer of a still brighter day beyond the gathering shadows, as I used to think I could almost see the glory of a brighter world as the last rays of the setting sun lingered in the sky; and that at other times the reverse of this is true, life looks dark, dangers arise on every side, and almost impenetrable, hopeless darkness follows the setting sun.

Again worldly passions control, selfishness is ascendent, and the object of life seems to be to get, and to keep, and to minister to the passions in every conceivable way. And then, again, how contemptible all this selfish, striving seems. How disgusting all indications of animal passion are, and how we feel impressed that we should live in a higher, nobler, more unselfish manner in order to be happy and make life worth the living.

Why these conflicting emotions in the same individual without apparent change in outward surroundings? Ignoring Phrenology, we strive, but strive in vain, to answer. Guided by Phrenology the answer is so simple that the child can understand, and yet so comprehensive and philosophical that the reasoner is convinced.

Phrenology declares that when the world seems bright and cheerful, the organ of Hope reigns, and where the world looks dark and full of danger, Caution is unduly excited and has gained the ascendancy of hope; that when the object of life seems to be to gratify our passions, that the base of the brain, in the region of Acquisitiveness, Secretiveness, Destructiveness, Combativeness, Alimentiveness, and Amativeness, controls the temple. But when we look with disgust upon our former thoughts and actions produced by this base of brain, and look upward for something better and nobler, the moral organs which should control the man, as their position indicates, have come to the rescue and lifted us above our former selves.

We may theorize upon man's nature, yet the evidence of the senses to the ordinary individual

is more convincing than all speculations and theories. When a man, subject to despondency and to look upon the gloomy side of the world, puts his hand upon his head and finds a deficiency in the organ of Hope and excessive Cautionness, all the arguments in the world could not be so potent in convincing as that one circumstance that man that the world is brighter than he thinks, and that he should banish his doubts and fears and cultivate cheerfulness.

Thus in regard to all the faculties, Phrenology speaks, and brings home with irresistible force that which has been but dreamed of before, and hence we can boldly declare it the foundation of mental science and the greatest aid in intellectual and moral improvement.

O. F. BATTEY.

HONORED PROFESSORS AND FELLOW-CLASSMATES: As the hour draws near to say farewell, and for us to turn our faces homeward, my heart is filled with mingled pleasure and sadness. I am filled with pleasure as I contemplate the many associations that we have formed in this class during the term. But when I think of parting and severing these friendly relations, a shade of sadness steals over me.

To me this has been an occasion of unusual pleasure, and one which I shall long remember, not only as one of the most agreeable, but I trust as one of the most profitable and important events of my life. I am confident that I have acquired more solid, substantial, and practical knowledge at this session than at any other similar period of time; our measure has been well filled, well shaken, and running over.

The methods and appliances employed by this Institute for imparting this knowledge have never been equalled. The good advice and wholesome instructions received from our teachers have made a permanent impression upon our minds. May it take root and blossom and bring forth fruit even a hundred-fold; and may we also be inspired, like the good sower, to broadcast it over the earth for the elevation and enlightenment of our fellow-men.

Much credit is due to our worthy instructors for the masterly efforts they have made in our behalf. Everything that could be done for our comfort or convenience has been done, for which we shall ever be grateful.

My fondest hope and most earnest desire is that the class of 1883 shall so deport itself as to reflect credit upon its teachers and honor upon the Institute that sends it forth from its parental doors.

In closing, I will thank both teachers and classmates for their kindness to me. I wish you all the greatest success and prosperity.

REV. A. C. DILL.

ESTEEMED PRECEPTORS AND HONORED PROFESSORS AND FACULTY OF THIS INSTITUTE: I bow before you in humble appreciation of your instruction. We have come to the *Wells* of phrenological lore, and our thirst has been in part satisfied.

To you, my classmates, let me say I have never known of another instance where so many persons have associated together for so long a time—whether for social, literary, or religious purposes—so pleasantly as we have done during the past weeks.

I would stop right here and say no more, and would have said enough, did I not believe that when one is possessed by a truth, as was Luther, he should out with it—he has no right to a selfish possession of it. Mr. Chairman, I have noticed that it is customary on this occasion to state how we were led to come to this Institution.

[Mr. Dill then explained his early advantages of study in the academy, university, and professional school—his researches in science in this country and across the Atlantic, but that for ten years past his ruling ambition had been to influence men to become new men in Christ Jesus, and thus save souls. He believes with his whole being that "The heavens and the earth shall pass away, but My (Christ's) word shall not pass away" (Matt. xxiv. 35), and he stated that Christ himself is the authority and the source of the doctrine of the eternal condemnation of those who reject His words; and hence he is spurred on in his ambition to lead men to repentance and to Christ the Redeemer of the world.]

It was for this purpose that I entered this Institution. I believe it teaches the simplest and the most practical method of grasping and understanding the characters of men. A single glance at them gives us a grip upon them from which they can not shake themselves loose. I love Phrenology because it encourages the weak and the backward. It inspires hope in the discouraged, it exalts man, and thus honors his Maker. It tries to lift him up into purity of life and uprightness of action; it aids him in apprehending that for which he was created—but neither Phrenology nor the higher study of metaphysics can do this of themselves. Fallen man, like a compass-needle which has lost its magnetism, must be touched by the great Divine Magnet ere he will be obedient to the Divine Will, as the needle is to the great magnetic influence; then there will be a great controlling force animating, guiding, and controlling him. Religion in its derivation means to "bind back" to God rebellious man; whence man becomes obedient to the will of God, then he is a saved soul—saved and safe in this life and in the life to come.

I thank you for permitting me to speak thus at length; and now, in bidding you farewell, I use the fuller form of the words, "farewell and good-bye," fare thee well and God be with you; and, let me add, may you be with God, for He is always near to bless the soul that would draw near unto Him.

CARL P. YOUNG.

OFFICERS OF THE AMERICAN INSTITUTE OF PHRENOLOGY, BELOVED TEACHERS AND CLASSMATES: If I could find words in your beautiful language as sweet as the odor of roses, as strong as the oak, or powerful as the ocean wave which smites the trembling land—if I could master such words and weave them into poems, I could not half express the gratitude and admiration by which my mind has been moved during the six weeks we have been together. Since the day I left my native land, Sweden, to the day I first saw your happy faces, I had been drifting upon the restless ocean of life without compass, chart, or rudder.

An unconquerable desire led me to this beautiful and restful harbor. Here have I received the true compass, chart, and rudder, which I trust will safely guide me across life's unknown sea to that yet more unknown land toward which we all sail. I now weigh my anchor, set my sails, and proceed on my voyage. But remember, that whatever may happen to me in the future, my gratitude and thankfulness to you all, and especially to our beloved teachers, is far greater than my powers of expression. The memory of your kindness shall flavor my whole life, and my continued prayer shall be that "He who weighs the destiny of men shall prolong your noble and useful lives yet many years to come."

And, dear classmates, who met as strangers, led by the same love of truth to listen to the lips of wisdom, now separating perhaps forever, we have become wedded to one of the most important and yet one of the youngest of sciences—Phrenology. Let us push its claims until a knowledge of it shall enlighten every home. Then will penitentiaries and poor-houses disgrace the land no more. It remains for us to hasten that day. Let us make a solemn covenant with each other and with the dead heroes of the past whose honored names shall bless the ages, and with the living philosophers of to-day whose names and work shall not be forgotten, that whether we are at home or abroad, in the lecture-field or the work-shop, no unworthy act of ours shall ever cast dishonor upon their fair fame or on the beautiful science of Phrenology. With honest purpose and earnest work we, too, may finally be able to say with the great heroes of the past, "I have fought my battle; my work is ended; I have done my duty."

LEWIS CARMAN.

WORTHY INSTRUCTORS AND CLASSMATES: A few weeks ago we met in this room strangers to each other. We had but one great idea before us, and that was to learn all that our instructors could teach us on the subject of Phrenology. We were told that we had undertaken a great work. It has fully proved so, for the subject seems to include so much, and of such interest and importance, we feel as though we had just begun. It includes the whole man. The saying, "a sound mind in a sound body," is generally true. A weak body can not support a strong mind. We have learned how to live and grow stronger in body and mind, and these are great points to fully understand. These facts have been carefully observed by our principal instructor, Nelson Sizer, and we are fully convinced that a right method of living, and careful culture of all our faculties, fully repay for all the necessary exertion. As we see people now in the light of Phrenology, we can almost read in their heads and faces, their whole life, how they live, and the prospect before them. We are really prophets, and may it be our constant study to be profitable to others.

I would also thank Mrs. Wells for her interesting lectures on the history of Phrenology in America, and her interest in this class; may she live for many years to aid the Institution, so intimately connected with her long efforts and care.

Prof. Sizer, we feel we will ever owe to your instruction more than we can now express and fully estimate. The other lecturers, on Physiology, Idiocy, Insanity, Mesmerism, and history of Phrenology, have instructed us, and we feel greatly indebted to them, for we have learned what we should know, and this instruction will be of great value to us. We shall be known from this day as phrenologists and graduates of the "American Institute of Phrenology." May each one of this class be an honor to this Institute, and practice what we aim to teach.

Mr. Curman, as chairman of the Committee on Resolutions, read the following:

RESOLUTIONS OF CLASS IN PHRENOLOGY.

Whereas, We the undersigned students have concluded a course of instruction in the American Institute of Phrenology.

Be it *Resolved*,

1. That as the study of mind in its various manifestations is one of the most important subjects to which men can turn their attention, we fully appreciate the noble efforts of all honest workers; honor their courage and skill, and recommend all who are earnest seekers after truth to study Phrenology, as the only science giving an accurate analysis of mental phenomena.

2. *Resolved*, That we extend to Mrs. C. F. Wells our sincere esteem and heartily sympathize with her in her effort to promote a science so replete with benefits for ourselves and posterity; that we rejoice with her in the hope she may live to realize the results she has devoted her life to accomplish.

3. *Resolved*, That Prof. Nelson Sizer, in his interesting lectures on Phrenology and practical demonstration of its truths, has earned our sincere respect and admiration.

4. *Resolved*, That we tender our thanks to Dr. N. B. Sizer, for the accuracy with which he has taught the subject of general physiology and other topics, and for the masterly skill displayed in the dissection of the Human Brain.

5. *Resolved*, That Prof. H. S. Drayton's scholarly lectures upon the inception and growth of Phrenology indicate much research and study, and we fully appreciate the same.

6. *Resolved*, That Dr. Robert A. Gunn, on Mesmerism, and interesting experiments in the same; that Prof. James B. Richards, on Idiocy, illustrating the wonderful manner in which idiots may be developed; and Prof. Frederick A. Chapman's instruction in Elocution have all been intensely interesting and profitable to the class.

7. *Resolved*, That Phrenology is a science which no one can afford to ignore, and that we will extend the phrenological truths we have received here as much as possible, and that we commend the American Institute of Phrenology to the world.

MISS F. R. ADAMS, Iowa.

H. MANN, Jr., Vermont.

LEWIS CARMAN, New York.

FRANK B. KNOWLES, New York.

J. C. OESTERGARD, Ohio.

E. M. LOCKARD, Pennsylvania.

O. F. BATTEY, Massachusetts.

W. E. LISCHER, New York.

REV. ARTHUR CUSHING DILL, New York.

REV. WM. R. SCOTT, New York.

ALFRED D. PERRY, Massachusetts.

A. H. WAIT, Kansas.

EDGAR A. DAVIDSON, New York.

CARL P. YOUNG, Sweden.

J. W. LEININGER, Canada.

CHARTER.

An Act to incorporate "THE AMERICAN INSTITUTE OF PHRENOLOGY," Passed
April 20, 1866.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. AMOS DEAN, Esq., HORACE GREELEY, SAMUEL OSGOOD, D.D., A. OAKLEY HALL, Esq., RUSSELL T. TRALL, M.D., HENRY DEXTER, SAMUEL R. WELLS, EDWARD P. FOWLER, M.D., NELSON SIZER, LESTER A. ROBERTS, and their associates, are hereby constituted a body corporate by the name of "THE AMERICAN INSTITUTE OF PHRENOLOGY," for the purpose of promoting instruction in all departments of learning connected therewith, and for collecting and preserving Crania, Casts, Busts, and other representations of the different Races, Tribes, and Families of men.

Section 2. The said corporation may hold real estate and personal estate to the amount of one hundred thousand dollars, and the funds and properties thereof shall not be used for any other purposes than those declared in the first section of this Act.

Section 3. The said HENRY DEXTER, SAMUEL R. WELLS, EDWARD P. FOWLER, M.D., NELSON SIZER, and LESTER A. ROBERTS, are hereby appointed Trustees of said incorporation, with power to fill vacancies in the Board. No less than three Trustees shall constitute a quorum for the transaction of business.

Section 4. It shall be lawful for the Board of Trustees to appoint Lecturers, and such other instructors as they may deem necessary and advisable, subject to removal when found expedient and necessary, by a vote of two-thirds of the members constituting said Board; but no such appointment shall be made until the applicant shall have passed a satisfactory personal examination before the Board.

Section 5. The Society shall keep for free public exhibition at all proper times, such collections of Skulls, Busts, Casts, Paintings, and other things connected therewith, as they may obtain. They shall give, by a competent person or persons, a course of not less than six free lectures in each and every year, and shall have annually a class for instruction in Practical Phrenology, to which shall be admitted gratuitously at least one student from each Public School in the City of New York.

Section 6. The corporation shall possess the powers and be subject to the provisions of Chapter 18, of part 1, of the Revised Statutes, so far as applicable.

Section 7. This Act shall take effect immediately.

LIST OF GRADUATES TO 1883.

We are often written to by persons in distant States to ascertain if "Prof. ——" is a graduate of the American Institute of Phrenology. Some persons whom we never before heard of have professed to be graduates of the Institute and endeavored thus to secure consideration. The following list embraces the names of all the graduates up to and including the year 1883. All our students have a diploma, and it would be safe to ask to see the diploma of those who claim to be graduates.

	STATE.	CLASS OF		STATE.	CLASS OF
Abel, Miss Loretta	New York	1877	Bullard, J. H.	New York	1866
Adams, Elijah M.	Missouri	1875	Buck, Marion F.	New York	1868
Adams, Miss F. R.	Iowa	1883	Burnham, A. B.	Wisconsin	1881
Alderson, Matt. W.	Montana	1875, 1879, 1880	Candee, E. E.	N. Y., 1873, 1875, 1878, 1880	
Alexander, Arthur J.	Indiana	1871	Campbell, H. D.*	New York	1874
Alger, Frank George	New Hampshire	1880	Carman, Lewis	New York	1883
Anderson, Samuel H.	Pennsylvania	1867	Catlin, David C.	Connecticut	1877
Arnold, Charles H.	Massachusetts	1870	Chester, Arthur	New York	1870
Arthur, Willie P.	New York	1874	Chesley, Egbert M.	Nova Scotia	1872
Aspinwall, F. E.	New York	1872, 1873	Chandler, G. E., M.D.	Ohio	1873
Austin, Eugene W.	New York	1878	Charles, G.	Canada	1876
Austin, Fred. H.	Pennsylvania	1882	Chapman, May	Massachusetts	1879
Ayer, Sewell P.	Maine	1868	Clark, Thomas*	New Jersey	1874
Bateman, Luther C.	Maine	1870	Clarke, Rev. Jas. Eugene	Maine	1877
Ballou, Perry E.	New York	1872	Collins, John	Wisconsin	1878
Bacon, David F.	New Hampshire	1875	Condit, Hilyer	New Jersey	1867
Baker, William W.	Tennessee	1876	Constantine, Rev. A. A.	New Jersey	1875
Baillie, James L.	Ohio	1881	Constantine, Miss Eliza	New Jersey	1875
Batthey, O. F.	Massachusetts	1883	Cowan, John, M.D.	New York	1870
Beecher, Eugene	Connecticut	1870	Cook, J. R.	Ohio	1872
Beverly, C. A., M.D.	Illinois	1872	Curren, Orville	Michigan	1873
Beall, Edgar C.	Ohio	1877	Curren, Thomas	Michigan	1873
Beer, John	New York	1878	Curren, H. W.	Michigan	1874
Bentley, Harriet W.	Connecticut	1881	Creamer, Edward S.	New York	1866
Bell, James	New Hampshire	1881	Crum, Rev. Amos	Illinois	1870
Bonine, Elias A.	Pennsylvania	1868	Daly, Oliver Perry	Iowa	1868
Brown, D. L.	Iowa	1872	Danter, James F., M.D.	Canada	1870
Bonham, Elisha C.	Illinois	1875	Davidson, E. A.	New York	1883
Bousson, Miss O. M. T.	New York	1877, 1882			
Brettell, Montague	Ohio	1875			

* Deceased.

	STATE.	CLASS OF		STATE.	CLASS OF
Davis, Wallace.....	Pennsylvania.....	1875	Nason, James.....	Massachusetts.....	1880
Detwiler, D. W.....	Pennsylvania.....	1880	Nason, Lot, M. D.....	Illinois.....	1860
Dill, Rev. Arthur Cushing.....	New Jersey.....	1873	Mackenzie, J. H.....	Minnesota.....	1873
Dodge, Lovell.....	Pennsylvania.....	1857	Mason, A. Wallace.....	Canada.....	1874
Downey, Rev. T. Jefferson.....	Ohio.....	1857	Manners, J. H.*.....	New Zealand.....	1877
Dolls, Rev. David, M. D.....	Iowa.....	1877	Mannion, Frank.....	Iowa.....	1879
Duncan, J. Ransom.....	Texas.....	1875	McDonald, Duncan.....	Michigan.....	1867, 1882
Du Bois, D. C.....	Iowa.....	1877	McIntosh, James.....	Ohio.....	1867
Drury, Andrew A.....	Massachusetts.....	1882	McDavid, J. Q.....	South Carolina.....	1874
Eadie, Andrew B.....	Canada.....	1877	McNeil, James.....	New York.....	1873
Emerick, Lycurgus.....	Illinois.....	1876	McClea, James.....	Illinois.....	1873
Espy, John Boyd.....	Pennsylvania.....	1875	McLaughlin.....	Canada.....	1882
Evans, Henry W.....	Pennsylvania.....	1867	McKee, William C.....	Ohio.....	1879
Fairbanks, C. B.*.....	New York.....	1872	Merrifield, John C.....	Canada.....	1868
Fairfield, John C.....	Pennsylvania.....	1875	Meller, Frank J.....	Illinois.....	1881
Ferry, A. L.....	Illinois.....	1831	Memminger, Thos. F. W.....	Virginia.....	1881
Field, J. H.....	Colorado.....	1866	Miller, E. P., M. D.....	New York.....	1867
Fleisch, Jacob.....	Ohio.....	1870	Mills, Joseph.....	Ohio.....	1868
Foster, Felix J.....	Mississippi.....	1870	Mills, Rev. J. S.....	Ohio.....	1872
Foster, Henry Ellis.....	Tennessee.....	1879	Miller, B. Frank.....	California.....	1882
Fraser, J. A. G.....	Canada.....	1877, 1882	Morrison, Edward J.....	Illinois.....	1868
Freeman, Charles F.....	Iowa.....	1880	Moatz, Lewis.....	Ohio.....	1869
Friedrich, Martin.....	Pennsylvania.....	1882	Moore, Joseph H.....	North Carolina.....	1877
Gause, Miss Elva P.....	North Carolina.....	1875	Morris, George.....	Canada.....	1878
Gaumer, Levi.....	Iowa.....	1876	Musgrove, William.....	England.....	1875
Gibbs, H. Clarence.....	Wisconsin.....	1874	Mully, A. F. F.....	New York.....	1882
Gillis, Benjamin.....	Missouri.....	1875	Newman, A. A.....	Illinois.....	1867
Glückler, Ralph J.....	New York.....	1882	Oestergard, J. C.....	Denmark.....	1881
Goodrich, Geo. D.....	Minnesota.....	1877	Olney, Henry J.....	Michigan.....	1875
Guilford, Ira L.....	Nichigan.....	1876	Osgood, Rev. Joel.....	Ohio.....	1880
Grant, Prentiss S.....	Mississippi.....	1873	Patterson, John A.....	Missouri.....	1872
Green, William R.....	Pennsylvania.....	1874	Parker, R. G.....	Missouri.....	1874
Grob, Samuel.....	Pennsylvania.....	1881, 1882	Parker, Howell B.....	Georgia.....	1875, 1880
Hawkins, William S.....	Connecticut.....	1866	Patten, Edward M.....	Illinois.....	1874
Hamilton, Elliott A.....	Michigan.....	1867	Patten, William Perry.....	Nebraska.....	1876
Haller, John S.....	Pennsylvania.....	1868	Paulsen, John H.....	Louisiana.....	1877
Hardy, John N.....	Wisconsin.....	1870	Peirson, Sampson H.....	West Virginia.....	1870
Haley, William T.....	California.....	1872	Perrin, Edward M.*.....	Kansas.....	1869
Hathaway, D. E.....	Massachusetts.....	1874	Perry, A. D.....	Massachusetts.....	1882
Hambleton, Harland E.....	Ohio.....	1875	Petry, Daniel F.....	New York.....	1866
Hawley, Edwin N.....	Ohio.....	1876	Philbrick, S. F.....	Ohio.....	1873, 1874
Harriman, O. B., M. D.....	Iowa.....	1876	Pierce, David F.....	Connecticut.....	1868
Hasie, Geo. E. (Lawyer).....	Mississippi.....	1879	Price, David R.....	Iowa.....	1868
Henderson, Francis M.....	Illinois.....	1867	Pratt, Benj. F., M. D.....	Ohio.....	1875
Henderson, James.....	New York.....	1872	Pratler, Miss M. O.....	Kansas.....	1876
Hilleary, Louis N., M. D.....	Iowa.....	1877	Purcell, E. M.....	Iowa.....	1874
Hiser, E. W.....	Indiana.....	1878	Reed, Anson A.....	Connecticut.....	1868
Hobson, A. Norman.....	Iowa.....	1869	Richardson, M. T.....	New York.....	1870
Holm, J. S.....	Iowa.....	1874	Richie, Porter D.....	Illinois.....	1872
Holt, Charles.....	New York.....	1875	Richards, William.....	Pennsylvania.....	1873
Holt, Mrs. Miriam J.....	Texas.....	1876	Robbins, T. L.....	Massachusetts.....	1872
Hoffman, Uriah J.....	Indiana.....	1874	Roberts, I. L.....	Florida.....	1872
Horne, William.....	Michigan.....	1874	Roberts, Jas. Thos.....	California.....	1882
Humphrey, John C.....	Alabama.....	1868	Roberts, Margaret E.....	Pennsylvania.....	1882
Hughes, Henry F.....	New York.....	1870	Robinson, G. M.....	Illinois.....	1882
Hummel, Levi.....	Pennsylvania.....	1876	Rogers, Ralph.....	Tennessee.....	1875
Huggings, L. E.....	Ohio.....	1877	Romic, Paul T.....	California.....	1877
Irving, Mrs. P. W.....	Connecticut.....	1874	Rosenbaum, Fred. Wm.....	Ohio.....	1878
Jackson, John P.....	England.....	1867	Sage, Enos A.....	New Jersey.....	1868
January, Charles P.....	Iowa.....	1879	Sadler, David M.....	Maryland.....	1879
Jennings, Alfred.....	Massachusetts.....	1872	Sanches, Mrs. Marie.....	Sweden.....	1880
Jones, Isaac S.....	New Jersey.....	1868	Sargent, C. E.....	New Hampshire.....	1874
Jones, John W.....	Indiana.....	1868	Scott, Martha A.....	Colorado.....	1861
Keith, A. H.....	Iowa.....	1877	Scott, Rev. William R.....	Illinois.....	1863
King, David.....	Ohio.....	1868	Seybold, Frederick J.....	Illinois.....	1870
Kindig, David S.....	Ohio.....	1877	Senior, F. D.....	New York.....	1879
Kirkpatrick, Robert.....	Montana.....	1879	Shultz, R. C., M. D.....	Iowa.....	1876
Kirven, P. E.....	Louisiana.....	1881, 1882	Sievert, Miss Sophie.....	New York.....	1880
Knowles, Frank B.....	New York.....	1883	Smith, Bartholomew.....	Rhode Island.....	1869
Lane, Rev. John C.*.....	Missouri.....	1869	Smith, Lundy B.....	Missouri.....	1874
Langley, M. L.....	Arkansas.....	1872	Smith, Thomas William.....	Canada.....	1874
Lauer, Rev. J. D.....	Ohio.....	1874	Snell, C. L.....	Pennsylvania.....	1873
Lawrence, Alva, Jr.*.....	New York.....	1876	Sommers, Jervis.....	Connecticut.....	1869
La Rue, Franklin.....	Montana.....	1882	Spring, Geo. A.....	New York.....	1882
Leavitt, Levi R.....	New Hampshire.....	1870	Stewart, Rollin.....	Vermont.....	1867
Leininger, John Wesley.....	Canada.....	1883	Strong, J. Wilmer.....	Pennsylvania.....	1868
Lester, D. C.....	Pennsylvania.....	1872	Stockton, Miss Alice.....	Illinois.....	1874
Lee, Rev. Geo. A.....	Pennsylvania.....	1873	Stone, W. T.....	Indiana.....	1867
Leonard, B. A.....	Massachusetts.....	1880	Staples, Ernest L.....	Connecticut.....	1877
Linvil, C. H.....	Pennsylvania.....	1879	Suares, Adolph B.....	New York.....	1876
Lischer, M. E.....	New York.....	1883	Swain, Henry E.....	New York.....	1870
Lockard, E. M.....	Pennsylvania.....	1803	Swift, Miss Edna A.....	Connecticut.....	1873
Macduff, Rev. R. E.....	Kentucky.....	1872	Taggart, Chas. Alvan.....	Massachusetts.....	1860
Mack, H. Q.....	New York.....	1867	Thompson, J. H.....	Pennsylvania.....	1866
Mann, H., Jr.....	Vermont.....	1883	Thompson, Benj.....	Iowa.....	1867
Matley, John.....	California.....	1870	Thompson, D. D.....	Canada.....	1873
Matlack, A. S.....	Ohio.....	1872	Thompson, Miss M. B.....	Ohio.....	1874

* Deceased.

* Deceased.

	STATE.	CLASS OF	
Thurston, Calvin H.	Indiana		1869
Thomas, J. W.	Missouri		1879
Tower, Henry M.	Massachusetts		1881
Turner, P.	Illinois		1872
Turner, Thomas	New York		1878
Wahl, Albert	Illinois		1879
Waide, Robert	Indiana		1882
Wait, A. H.	Kansas		1883
Wallace, A. B.	Tennessee		1877
Walters, Eli	Ohio		1874
Waterman, L. E.	New York		1870
Watson, Charles S.	New Hampshire		1869
Welles, R. W.	Connecticut		1873
West, Mrs. Mary A.	New York		1870
Whitaker, John	New York		1869
Wightman, Charles S.	Rhode Island		1872
Wiest, Ezra	Pennsylvania		1875
Wildman, Wellington E.	Ohio		1876
Wildman, Mrs. W. E.	Ohio		1876
Winkler, Henry	Indiana		1877
Wood, Oscar D.	New Jersey		1873
Wood, Elbert B.	Kentucky		1879
Worrall, M. B.	Ohio		1877
Wyscarver, T. J.	Ohio		1874
Young, C. P. E.	Sweden		1883
Young, Henry	Ohio		1875

edge of human nature and enable them to guide and instruct those committed to their care.

BUSINESS MEN who would judge strangers and customers, and know how to suit their treatment to every class, the slow, the cautious, the quick, the sharp, the erratic, the dishonest, should study Phrenology. He who can read mind will insure success in his calling, while those who must "cat a busbel of salt" with a stranger before he knows him, will fail.

THE MINISTER, lawyer, physician, merchant, teacher, parent, who can read character better than others, is the one who rises to distinction in his or her field of effort. Students who have been educated in this Institute, go back to their vocation and seem to themselves and others to be in a new world. They have learned how to meet, please, and control customers, pupils, clients, parishioners, patients, children, and neighbors; and they do good, and perform duty pleasantly and profitably.

As all business, science, and learning, and nearly all of human success and happiness, grow out of the right action of the human faculties, the study of this great theme is the crowning field of effort; for how valuable soever may be the knowledge of those sciences which relate to outward things, engineering, agriculture, manufactures, commerce, they must all take place second to that which relates to the human mind itself.

To understand Phrenology is to know our own talents and how best to use them; our faults and how to avoid or modify them—it is also a means of understanding others and moulding their thoughts, feelings, and conduct in harmony with our wishes and their own happiness.

WHO MAY PROPERLY STUDY PHRENOLOGY, AND WHY.

MIND being the centre and controlling force of human life, its study is of the utmost importance, and stands first in interest, since all talent, morals, and happiness result from its proper activity.

PHRENOLOGY offers the only practical solution of the human problem. Man is full of power and possibility; he must act, and for each person there is a path, which, in many respects, follows the exact line of no other. Its fundamental doctrine is, that each mental faculty is exercised by means of a portion of the brain, called its organ, the size and quality of which determine its power.

PHRENOLOGY shows how the bodily conditions influence mind and morals. It teaches the true system of Education, shows how to classify pupils, to develop and discipline each faculty, separately, and all collectively. Indeed, to Phrenology and Physiology mainly is the world indebted for its modern educational improvements, and most of its leaders in this department are phrenologists.

PHRENOLOGY teaches parents for what occupation in life their children are best adapted, and in which they can, and can not, be successful and happy. It also teaches parents the exact characteristics of children, and thereby how to manage and govern them properly; to what motives or faculties to appeal, and what to avoid; what desires to restrain, and what to call into action.

It is not alone to those who expect to follow Phrenology as a profession that the **AMERICAN INSTITUTE OF PHRENOLOGY** opens its doors, and makes its appeal.

PRINCIPALS of public schools and all **TEACHERS** should study the science to enlarge their knowl-

ADVICE FOR STUDENTS.

Those who propose to attend the American Institute of Phrenology desire information on many points important to themselves; and to save them from anxiety and inconvenience, as well as to obviate the necessity of writing perhaps two hundred letters of explanation, we give here a general statement.

NECESSARY EDUCATION.

To secure success in practical Phrenology one does not absolutely need classical culture, but a good common school education is desirable; and the more general information one has, the better. The "Text-books" noted near the close of this circular, it is desirable that each student should read before entering the Institute; but if not possible, the best may be studied to learn the location of the organs, also "How to Read Character," to gain a general outline of the subject.

HOW TO GET TO NEW YORK.

In coming to New York you should purchase a through ticket if possible, and if you have a trunk or valise which you do not need on the way, get it checked, and thus save care.

Students should prepare the means for payment of tuition and their necessary expenses during their stay in New York, before they come. Those who can do it should bring their funds in drafts, then they are not subject to the danger of losing their money on the way. Those who bring money can have it deposited in bank while here, thus preventing the possibility of loss.

We advise students, after buying their passage tickets, to have only so much money within reach as will pay their current expenses on the way here. The balance, if not in form of draft, should be sewed into a pocket in the undergarment. Nor should students inform strangers who they are, where they came from, where they are going, or their business in New York. And on landing, if they have much baggage, should leave it in care of the railway, and come directly to our office, bringing the baggage checks with them. When they have found their boarding place, an expressman will take their check and deliver their trunk where it is to remain.

On landing at Jersey City from the West or South, retain your baggage check—pay no attention to agents on the train—and come to our office, 753 Broadway, cor. Eighth St. Walk from the ferry to Broadway, and take an omnibus for your destination—you need not take a carriage. If you come from the North or East, and land at the Grand Union Depot at 42d St., New York, take a street car which starts from the depot, and stop at Eighth Street, and you are one block from our office. If you come into the city in the night, go to the Sinclair House, Broadway, corner of Eighth Street, directly opposite our office.

ROOMS AND BOARD.

Boarding can always be obtained near the Institute at moderate prices. From four to five dollars a week usually cover the expense. Those who desire to live hygienically can do so. Some hire their lodgings and select the food they desire at restaurants. Sometimes hygienic students club together and take rooms, and procure their own food to suit themselves. Some have thus brought the cost of their living inside of three dollars a week.

We take special pains to aid students to find desirable quarters, and to facilitate any purchases which they may wish to make, or give them directions as to places of interest to be visited, and the proper way to make their stay in the city safe, pleasant, and instructive.

OPPORTUNITIES IN NEW YORK.

Students have free opportunity to become familiar with our extensive cabinet.

Our class sessions are so arranged that students can attend the popular lectures and other entertainments given in the city; they can visit museums of art and science, public libraries, or the criminal courts, penal and charitable institutions, and numerous other places and objects of interest.

ELOCUTION.

Our excellent course of vocal culture will aid students in strengthening the voice and learning how to use it effectively in public speaking.

OLD STUDENTS.

As an evidence of the value of the Institute course, we may mention that nearly every year one or more students return to take a second course, which is afforded to them at a nominal sum, and they are enthusiastic in praise of its value to them in developing new phases of the subject, and repressing and intensifying the old; besides giving a double portion of the practical part, so essential to success; and we notice the marked difference in second-year students, especially after they have been in the field, and learned to make practical their knowledge.

HEALTH IN NEW YORK.

Sometimes people feel afraid to come to a great city, thinking it may not be healthful. We believe that New York, with its present modern improvements for cleanliness and ventilation, is as healthy a place as there is in the land, unless it be some mountain-top. And most of our students not only maintain their health perfectly, but gain during the course, sometimes ten pounds in weight.

OUTFIT.

Some ask us in respect to outfit. Our reply is, that one can spend from fifty dollars to two hundred dollars profitably, in the way of outfit, or can start with a very little, and add to it as he has means and feels disposed. A man can start with nothing but his hands and his tongue to work with. He may start with ten dollars in the way of apparatus and material, but he would do better with fifty dollars. This matter can be discussed and explained fully while here, where apparatus of different kinds and amounts can be seen and estimated.

Those who contemplate visiting the city for the purpose of attending the Institute will do well to cut out and bring this article in their pocket, for reference when about to reach New York, so as to avoid confusion and mistakes.

FIELD NOTES.

MR. DUNOAN McDONALD, of the Class of '67, is successfully working in the Pacific States, and wherever he goes he makes a deep and good impression which lasts. He can be addressed at San Francisco, Cal.

DR. B. F. PRATT, of the Class of '75, is making his presence felt in Ohio, where he attracts large audiences. He has wisely undertaken to cultivate a portion of that noble State, and there is room enough in it for twenty good phrenologists.

L. C. BATEMAN, of the Class of '70, is doing the world good by his successful work, not only as an eloquent and intelligent lecturer, but as a writer for the press. He can be addressed at his home, North Searsmont, Me.

U. J. HOFFMAN, of the Class of '74, having become associate principal of the Normal School at Aurora, Ill., will make his worthy work a means of great good to the entire State by widening the knowledge and enhancing the skill of the pupils as they become teachers. Every teacher should understand the science of mind as revealed by Phrenology.

IRA GUILFORD, Class of '71, is doing excellent work in the West, and his frequent orders for books show that he is planting the science wherever he goes, and prospering as good workers deserve to who have talent and knowledge.

WILLIAM MUSGROVE, Class of '75, is settled in England, his native country, and his letters express much hope in view of the growing interest there.

DR. U. E. TRAEER is lecturing in Iowa with his usual success. He may be reached by addressing him at his home, Vinton, Ia.

MR. MORRIS, Class of '78, is doing a good business, as usual, in Iowa and other Western States. He is a great worker, and heartily in earnest in all he does.

MR. HUMMEL, '76, is in Pennsylvania, and we frequently hear of his good work and success.

EDGAR C. BEAL, Class of '77, is located in Cincinnati, O., and from all we learn, he is doing a good business, and the leading papers in that city speak well of him and his talent as a phrenologist. We have no doubt he will continue to earn and win success.

REV. DAVID DODD, of the Class of '77, is preaching in Iowa, and still finds Phrenology a great aid to him in his ministerial and pastoral work.

REV. GEO. A. LEE, Class of '73, writes us from West Virginia, where he is settled over a religious congregation, and finds, as he expected, great aid from Phrenology, in his work of teaching righteousness and leading men away from evil.

HOWELL B. PARKER, Class of '75 and '80, is making Phrenology exceedingly valuable to the people in Georgia, by teaching the best school in the State on the principles of bodily and mental physiology.

We wish every county in his State, and in other States, had so good and capable a man at the head of their educational interests. The educational world may make the most of him while they can, for we hope he will soon be in the lecture field, where his talents and zeal will find ample opportunity for the broadest and the best success.

A. B. KEITH, Class of '77, makes his paper vocal with phrenological truth, and with his clear head and ready pen is doing work that will last.

FRED. H. AUSTIN, Class of '82, is working in Western Pennsylvania and securing marked success both financially and in making Phrenology useful to the people.

E. M. LOCKARD, Class of '83, is presenting the subject acceptably in Pennsylvania, and meeting, at every place he has visited, great encouragement in respect to his examinations.

FRANK B. KNOWLES, Class of '83, is working in Western New York, and his talent, zeal, and worth ought to win wherever he goes.

MR. THOS. CLARK, Class of '74, died in Paterson, N. J., during the last year. He was a most sincere and faithful worker, and his efforts and influence were always on the right side. Many will regret his early death and miss him sadly.

WILLIE P. ARTHUR, of Long Island, Class of '74, pays us an occasional visit, and bears testimony to his continued interest in the subject, and the great aid which Phrenology has been to him in his agency business.

MR. JOHN BEER, Class of '78, is engaged at his work as a sculptor in this city. He finds his knowledge of Phrenology of great use to him.

J. W. LEININGER, of the Class of '83, orders books liberally from his field of labor, Canada, and is making his mark among the people, as we supposed he would.

JAMES MASON, Class of '80, is in St. Louis, practicing Phrenology. He is a wide-awake man, and will get a hearing almost anywhere.

ANDREW A. DRURY, of the Class of '82, is lecturing in the Penobscot Valley, in Maine. He is a most earnest worker, tells the plainest of plain truth in his examinations, and heartily believes in the beneficent influence of Phrenology when properly set forth and applied.

A. WALLACE MASON, of the Class of '74, has a Phrenological office in Toronto, Canada, and is making a favorable impression upon the minds of

the people, and bringing the science of Phrenology to bear upon the improvement of those who consult him. We bespeak for him the confidence and respect of all.

OUTLOOK OF THE CLASS OF 1883.

The annual session of the American Institute of Phrenology, beginning the 1st of October and closing the 13th of November, had some points of special interest. The students in attendance were bright, thoroughly in earnest and exceptionally industrious, devoting their time between the lectures to the measurement of busts and skulls which were used in the class-room for illustration, and also in the measurement and critical examination of living heads. One new and interesting feature was added to this class of instruction, in the form of a course of popular public lectures which were given at the Cooper Institute; and the students seemed to relish the difference between the sharp, critical, and technical method pursued by the teachers before the class, and the popular treatment of the subject of phrenology and physiology before a public audience. Those members of the class who contemplate entering the lecture field were thus given an opportunity to witness a presentation of the subject to a popular and crowded audience, and to see the effect on the people who were not very familiar with the subject, of the startling and vivid development of the great truths of human nature; especially where four or five strangers were called up for examination, when the lecturer would assign one to medicine, another to architecture, a third to trade, a fourth to editing, and a fifth to some special mechanical line, and then to hear the subjects endorse the delineation as specially correct. And at the lecture on the training of children, when several of the little people were called to the platform, and suggestions given as to how they should be fed, taught, trained, and cared for, opened to the students an idea how much opportunity for doing good lies in the pathway of the practical phrenologist; assigning to one the business which will make his fortune, or save him from immorality and failure, or the mode of living which will enable one to reach a happy old age, who would be likely to break down in early life; and what seemed to astonish the students most, was the dash and apparent abandon with which the lecturer would point out to strangers such marked peculiarities and dispositions, as if it were something that demanded extra courage, or as if there were some risk in doing it; but before the popular course was ended their astonishment seemed to abate.

RELIGION AND PHRENOLOGY.

A sentiment has to some extent existed that Phrenology is antagonistic to religion, and some people of eminent ability and excellence, but without sufficient investigation, have permitted their influence to be felt in opposition to it; and curiously enough, while they have doubted that the brain had relation to mental life any farther than perhaps to subserve the *intellect*, they have been willing to regard the heart and other viscera as the seat of the moral emotions; as if the brain, the most delicately organized part of the constitution, were a less fit instrument through which to manifest moral qualities, than the heart, which is less finely organized, and has a well-ascertained function of another sort to perform. It has also been objected that Phrenology must have something of implety in it, or else infidels and skeptics would not so generally accept it. This may be explained by the fact that those people who are most sincerely pious, have generally been slowest to adopt new discoveries, for fear that they might unsettle the foundation of the world's faith, while the skeptical, who are perhaps as keenly intellectual as any, but having less religious tendency and perhaps an utter disbelief in religion, have had no barrier between themselves and the teachings of new ideas. They have studied the subject and adopted its principles, because they appeared to be true; while those with strong and well-trained Veneration are inclined to accept that which the fathers have taught, and to suppose that nothing new in explanation of mental phenomena is likely to be true.

In our experience in Phrenology, we have met several clergymen who were once infidels. They had heard that Phrenology would sustain skepticism, but on reading the works, were converted in their opinions, finding that Phrenology always has taught the existence of God as an object for the well-known emotion of veneration, and that Spirituality gives to the soul a sense of a higher life; they adopted the Christian faith and became devoted and successful ministers of the Gospel. One of these ministers in Vermont welcomed the writer to his church and announced to his congregation that there was to be a course of lectures, earnestly urged them to fill the house, and the next Sunday he preached a sermon on the "Sins which do easily beset us," using phrenological terms as a means of enforcing his text. Our best supporters and most ardent friends to-day are eminent orthodox ministers of every denomination. Certainly no subject will more aid the powers of influence of ministers of the Gospel, and of teachers, than the explanations of mind and character which Phrenology brings; and thousands are reaping rewards of successful influence, by the aid which Phrenology has imparted to them. They may not in general use phrenological terms, or even explain the source of their means of influence, but they are prompt and hearty in their statements when we meet them at their houses, or they call on us at our office.

Mr. Combe happily remarks that "It is a groundless terror to apprehend that religion will ever be extinguished, or even endangered, by the arguments or ridicule of the profane, because nature has implanted the organs of Veneration and Spirituality in the brain, and the corresponding sentiments in the Mind. While the human heart continues to beat, veneration for the Divine Being will ever animate the soul."

ALL THE LEADING DRUGGISTS SELL PEARS SOAP

PEARS' SOAP

THE FAMOUS ENGLISH COMPLEXION SOAP.



HIS OPINION OF PEARS' SOAP

If Cleanliness is next to Godliness, Soap must be considered as a Means of Grace and a Clergyman who recommends moral things should be willing to recommend Soap. I am told that my commendation of Pears' Soap has opened for it a large sale in the United States. I am willing to stand by every word in favor of it that I ever uttered. A man must be fastidious indeed who is not satisfied with it.

Henry Ward Beecher



ESTABLISHED IN LONDON 100 YEARS.

A SPECIALTY FOR THE SKIN & COMPLEXION, As recommended by the greatest English authority on the Skin,

PROF. SIR ERASMUS WILSON, F. R. S. Pres. of the Royal Col. of Surgeons, England.

Nothing adds so much to personal appearance as a **Bright, Clear Complexion and a Soft Skin.** With these the plainest features become attractive. Without them the handsomest are but coldly impressive.

Many a complexion is marred by impure alkaline and Colored Toilet Soap.

PEARS' SOAP

Is specially prepared for the delicate skin of ladies and children and others sensitive to the weather, winter or summer. In England it is pre-eminently the complexion Soap, and is recommended by all the best authorities, as, on account of its emollient, non-irritant character, **Redness, Roughness and Chapping are prevented,** and a clear and bright appearance and a soft, velvety condition imparted and maintained, and a good, healthful and attractive complexion ensured.

Its agreeable and lasting perfume, beautiful appearance, and soothing properties commend it as the greatest luxury of the toilet. Its durability and consequent economy is remarkable.

15 INTERNATIONAL AWARDS.

ALL THE LEADING DRUGGISTS SELL PEARS' SOAP

pp 179-196 repeated

Old Series, Vol. 78
April, 1884.

KNOW THYSELF

New Series, Vol. 29
NUMBER 4.



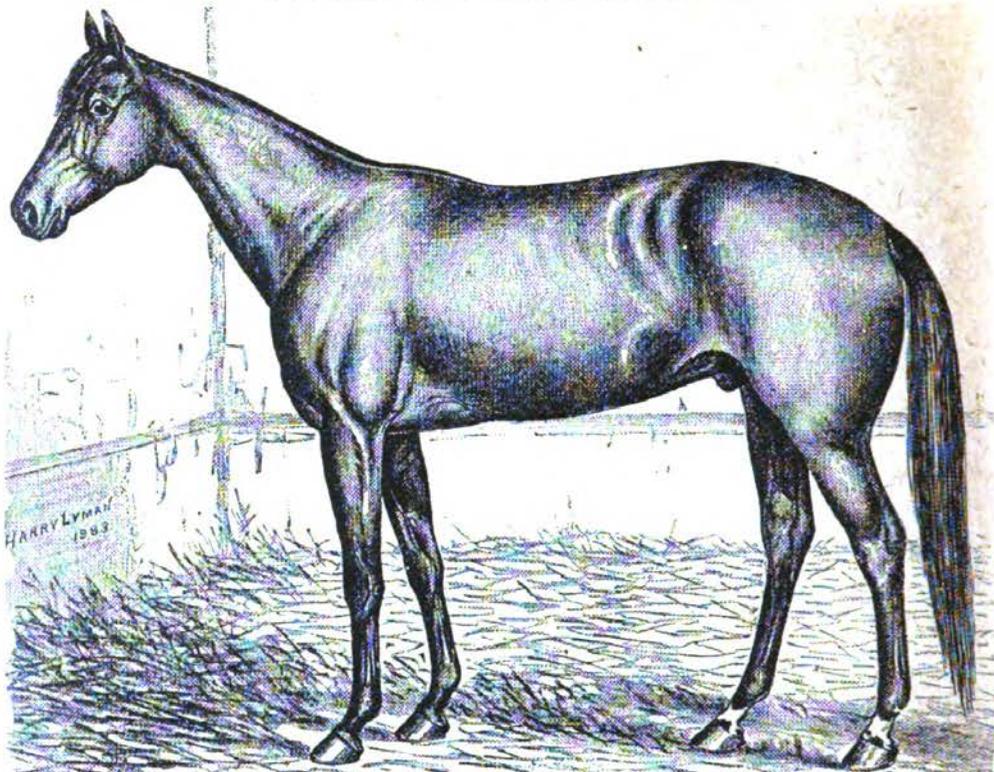
A First-class Monthly Magazine, devoted to the Study of Human Nature in all its Phases.

SUBSCRIPTION TERMS.
 1 copy, 1 year. . . . \$2.00
 1 copy, 6 months. . . \$1.00
 1 copy, 1 month. . . . 20c.
 10 copies, 1-year. . \$15.00

CONTENTS.

I. Wendell Phillips.—Portrait . . .	179	Notes in Science and Agriculture.—	
II. Jacob's Ladder	182	Anthropology in Italy; A Barrel Post-	
III. Collins' Ode on the Passions.—		office; The Silks that Wear Longest;	
Illustrated	187	The California Big Trees; The Import-	
IV. A Metaphysician's Analyses Ana-		ance of Fewer Acres; The Dugong, or	
LYSED	193	Vegetarian Whale; False Information;	
V. "What is Love?"	197	Classification of Soil; The Canine Curse;	
VI. The Reed-Mask, or Serpula.—		An Effect of Irrigation	220
Illustrated	198	Editorial Items.—Fundamentals in Political	
VII. How he Studied Phrenology . . .	200	Economy, No. 3; Shall we Return to	
VIII. Age	206	Archaic Diet? The Western Floods . .	223
IX. Maj.-Gen. Charles G. Gordon.		Poetry.—Wendell Phillips; Reason; Quack	
—Portrait	208	Medicines; Life.	
X. The Causation and Prevention of		Answers to Correspondents.—Vegetation	
INSANITY	212	and Animal Life Proportionate; Heart	
XI. Edenic Food	217	and Thought; Whistling Girl; Vegeta-	
XII. Beer-Drinking and Fatal Dis-		ble Medicines; A Good Dictionary.	
EASE	218	WHAT THEY SAY—Callings and Charac-	
		ters	228
		Personal—Wisdom—Mirth—Library.	

ENTERED AT THE POST-OFFICE AT NEW YORK AS SECOND-CLASS MATTER.
 FOWLER & WELLS CO., Publishers, 758 Broadway, New York.
 L. N. FOWLER, Imperial Buildings, London, England.



[JAY-EYE-SEE.]

HORSES:

Their Feed and Their Feet.

A Manual of Horse Hygiene invaluable for the veteran or the novice. By C. E. Page, M.D.; with a treatise and notes on shoeing by Sir George Cox and Col. M. C. Weld. Nearly 200 pp. 12mo. Illustrated. Paper, 50 cts.; extra cloth, 75 cents.

This book gives in a condensed form much that is valuable on the care of horses, that has not before been published. The subject is considered from a new and original stand-point, and stated in a plain, practical, common-sense manner, showing how by proper care we may add many valuable years of life and usefulness to our horses. Unlike many books on this subject, it does not advertise any medicines.

To a new edition has been added, as plates, a number of full-page portraits of famous and thoroughbred horses, including "Jay-Eye-See," "Joe Bunker," "Parole," "Alcantara," "Miss Woodford," "Estes," "Eole," "Buckeye Bayard," "Buckingham," and others.

PARTIAL CONTENTS.

Foul Air and Disease in Stable; Blanketing a Steaming Horse; How to Transform a "seedy" Horse; "Condition" in Horses; Why they go Lame Suddenly; Flesh *vs.* Fat; A Soft Horse; Hint to Would-be Race-winners; Two-meal System; Extra Feed; Dyspepsia or Indigestion, Symptoms and Cause; Cause and Cure of "Pulling"; "Colds"; What this Disorder really is, and How Caused; Prevention of the "Distemper," Its Cure; Hand-Rubbing *vs.* Drugs; Danger of Medication; Use of the Blanket; Clipping; Eating and Digesting—the Difference; Kind of Treatment; Over-driving; Over-work; A Safe Remedy; Chest Founder; Chronic Disease, Cause; Hints relating to Food and Drink; Sore Back; Scrofula; Glanders; Kidney Complaints; Relation of "Condition" to Reserved Force or Staying Power;

Quantity of Food; The Best Feed; Flatulence; Cribbing; "Grassing Out"; About the Appetite; Feeding of Road Horses; First-class Stables; "Mash"; Veterinary Practice; Founder; Eating the Bedding; Rules that may be Tried.

SHOEING.—Value of Horse Property; Normal Age of the Horse; Chief Source of the Horse's Suffering; One Cause and Cure of Swelled Legs; Effect of Shoe Nails; Running Barefoot over Rocky Hills; Direct and Indirect Benefit Everybody but the Blacksmith Benefited; Independence of the Unshod Horse; French, English and Mexican Army Experiences; Col. Weld's Experience; The Experience of Others; Speeding without Shoes; The Training and Signs of Character of Horses.

It is safe to say, that to every owner of a horse this book would prove most valuable. The price is only 50 cents in paper covers, or handsomely bound in extra cloth, 75 cents. By mail, post-paid. **Agents Wanted** to sell this to every owner of a horse. Specially liberal terms given. Address

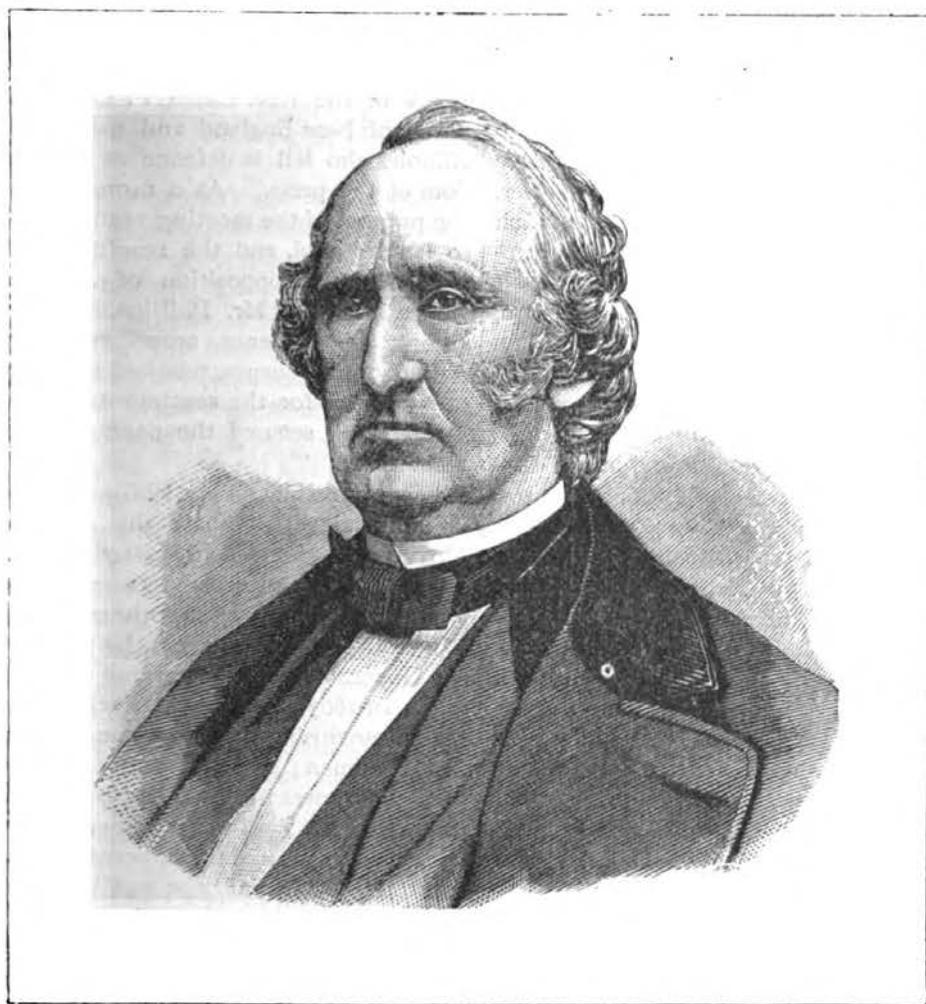
FOWLER & WELLS CO., Publishers, 753 Broadway, New York.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 78. 1884.

NUMBER 4.]

April, 1884

[WHOLE No. 544.



WENDELL PHILLIPS.

IN the death of Wendell Phillips, which occurred on the 2d of February last, the American people are called to deplore the loss of one who, for forty years, had been prominent and influential on the side of truth and progress. In clearness of intellectual perception, in breadth of moral sentiment, in ability to analyze

the principles of human conduct, and to declare his opinions in terms at once graceful and persuasive, Wendell Phillips stood in the forefront a peer with the most gifted, the most philanthropic, the most earnest, the most fearless.

He had been one of the foremost orators of the century for forty years, yet his vigorous sentences, with their refined phraseology and accompaniment of graceful gesture, were only the external of the man, "only the fine clothing of the spiritual utterance." If Wendell Phillips had never addressed an audience from the platform he would still have been a great man—for he would have written more, and when men of radical mind take to writing instead of speaking, they delve deeper and express more of themselves. And may we not say it, they are much less subject to mistrust and misinterpretation.

Wendell Phillips was born in Boston, Mass., on the 29th of November, 1811. His father was John Phillips, who had been somewhat prominent in the affairs of that city, both socially and politically. When Boston was organized into a municipality, he was elected its first mayor. Young Wendell was educated with a view to the law, being graduated at Harvard College and at the Cambridge Law-school, and admitted to the bar of Suffolk County in 1834. In the outset of his legal career his attention was drawn to the subject of slavery, as its agitation in Congress, and by public men North and South, was then producing great excitement, and there were outbreaks of popular feeling in Massachusetts bordering on frenzy. Especially was this the case in 1835, when a mob occupied the principal streets of Boston. Mr. Phillips witnessed this manifestation of unbridled passion, and was led to join the Abolitionists in 1836, even going so far in his sincerity of interest as to withdraw from the practice of law in 1839, feeling that as a lawyer his oath of loyalty to the Constitution of the United States would be a hindrance to his devotion in the new cause. In the warmth of

his enthusiasm, he became one of that extreme Garrisonian school that accounted every institution in politics, society, industry, and religion that was construed favorably to the then existing order of affairs, as in league with the powers of evil, and to be disregarded if not destroyed.

In December, 1837, he made the first speech which drew notice to him, as one likely to prove a leading spirit in the anti-slavery movement.

The occasion was a meeting of citizens in Faneuil Hall, "to notice in a suitable manner the recent murder in the city of Alton of the Rev. Elijah P. Lovejoy, a native of New England and a citizen of Illinois, who fell in defence of the freedom of the press." At a moment when the purpose of the meeting seemed likely to be defeated, and the resolutions rejected by the opposition of Attorney-General Austin, Mr. Phillips, who was among the audience, arose, and in an outburst of eloquence, rebuked the Attorney-General for the sentiments he had uttered, and secured the passage of the resolutions.

From that time on Mr. Phillips' history is identical with that of the Abolition Movement. He even advocated disunion as the most effective plan to secure negro emancipation in the Southern States. When the civil war began, he sustained the Government with the same object in view. In 1863-4 he advocated with fervor the enfranchising, educating, and arming the freedman; and for the two first-named purposes he continued the organization of the Anti-slavery Society until after the adoption of the fifteenth amendment in 1869. In 1870 he was the Temperance and Labor-reform candidate for Governor of Massachusetts, receiving about 20,000 votes.

By organization he was a leader; his active temperament, his sensitive conscientiousness and strong combativeness, together with the years of experience in the turbulent contest into which he threw himself so early, made him an agitator. He knew no middle ground in the advocacy

of a cause. He was an iconoclast, says a writer in a former number of this magazine, who spared no image that hindered him in his progressive march. He seemed to have a "cranky" wish to be prominent on the losing side of a cause or a controversy. His sympathies were with the "under dog" in the fight. When a-hunting for human game he pointed his weapon of reproach, censure, and invective at some of the tallest men, and made war with the police authorities, the judiciary, the army, the legislature, the club. He is found employing his eloquent tongue in favor of woman suffrage and against capital punishment. He accounted the hanging of Guiteau a crime.

About two years ago he delivered the oration at the centennial anniversary of the Phi-Beta-Kappa Society of Harvard, an assemblage of the very *élite* of New England culture and education. When describing the characteristics of "The Scholar of the Republic," he marshalled into line all his unpopular ideas, and with magnificent diction thrilled his great audience with "mingled feelings of delight, astonishment, surprise and anger." He held up to their own derision the very men and women of his audience, while he bade them contemplate the men of labor and toil as deserving their praise. He showed them how college-bred men "fail in their republican duty when they allow others to lead the agitation of the social questions which stir and educate the age." He thus explained the significance of "Agitation":

"Agitation is an old word with new meaning. Sir Robert Peel, the first English leader who felt himself its tool, defined it to be 'marshalling the conscience of a nation to mould its laws.' Its means are reason and argument—no appeal to arms. Wait patiently for the growth of public opinion. That secured, then every step is taken forever. An abuse once removed never reappears in history. The freer a nation becomes, the more utterly democratic in its form, the more need of this outside agitation. Parties and sects

laden with the burden of securing their own success can not afford to risk new ideas. 'Predominant opinions,' said Disraeli, 'are the opinions of a class that is vanishing.' The agitator must stand outside of organizations, with no bread to earn, no candidate to elect, no party to save, no object but truth—to tear a question open and riddle it with light. In all modern constitutional governments, agitation is the only peaceful method of progress. Wilberforce and Clarkson, Rowland Hill and Romilly, Cobden and John Bright, Garrison and O'Connell have been the master spirits in this new form of crusade. Rarely in this country have scholarly men joined, as in a class, in these great popular schools, in these social movements which make the great interests of society 'crash and jostle against each other like frigates in a storm.' It is not so much that the people need us, or will feel any lack from our absence. They can do without us. By sovereign and superabundant strength they can crush their way through all obstacles."

He was the son of fortune, and hence had the time and the money to pursue his way to his liking. He married a lady who inherited wealth, and gave it freely to the cause Mr. Phillips had espoused. He was, however, plain and simple in his living and tastes, occupying an old house on Essex Street, Boston, until driven out of it by the march of local improvement. And it was a great grief to him, though no other man of like tastes and means would have lived in such a place of noise and turmoil. On one side of the plain brick house was a shoemaker's store and on the other a drinking saloon. On the brown door was painted in black the name of Phillips. His library, or study, was a room on the second floor, heaped and littered with books, pamphlets, manuscripts, pictures, busts, statuettes, etc. There was one sofa clear and about two chairs—everything else was buried.

Although a born aristocrat, he was in heart a man of the "people." A lover of art and science, of beauty and culture in

all its phases, he collected few pictures or bronzes or marbles, preferring to give their cost to the poor. No really needy, deserving man or woman ever appealed to him in vain. It was said by one who knew him, "He is constantly doing good, but he is so secretive and silent concerning his benevolence that nobody hears of it unless by accident." His manner in private was simple and natural; it put persons at their ease; yet it was the manner of a patrician, and "men of the common sort who met him esteemed and ad-

mired him, though they always felt the difference between him and themselves." His wife, a beautiful woman in her youth, and an heiress of wealth, early became a chronic invalid. He had no children. To his wife he was accustomed to ascribe all the best things he had done. She encouraged, aided, sustained him in his self-appointed work from the outset, and nothing in his life was more touching and admirable than his affectionate devotion toward her.

D.

WENDELL PHILLIPS.

HE saw humanity in tears and chains,
 Beaten and robbed, and by the wayside bleeding,
 And priest and levite passing by unheeding
 The sufferer's cries and wounds, and crimson stains,
 And then, in eloquent and marvellous strains
 He spoke, and thrilled the nation with his pleading,
 Standing by justice, not one step receding.
 "Scorning the gifts of fame" and golden gains,
 That he might better aid the task of raising
 The poor downfallen and downtrodden man.
 The music of his speech, the world is praising,
 Made him the eloquent Samaritan;
 Whose lips were at the altar touched with coals,
 That melted hearts and kindled kindred souls.

GEORGE W. BUNGAY.

JACOB'S LADDER.

THE above title might imply a sermon, yet it is not intended to attempt what is usually termed such; the selection is rather because of its aptness to my purpose. In Genesis xxviii. Jacob is said to have had a dream: "he dreamed, and behold a ladder set up on the earth, and the top of it reached to heaven, and behold the angels of God ascending and descending on it."

In passing it would be well to bear in mind that the ladder is "set up on the earth," and not let down from heaven, and also that the angels of God ascend and descend. The accumulative wisdom of the world has changed many things,

and now, in this nineteenth century, we have very different ideas in regard to the physical condition of the universe from what were common in the days of the patriarchs. In those times the world had accumulated few facts whereby the organization of the universe could be understood. They thought the earth to be one extensive plain, and heaven a region above, beyond the clouds and stars, so they used the expressions "up" and "down," "above" and "below." The good spirits dwelt *above*—the evil spirits *below*. The earth was the middle land between them. Whatever was good belonged to the "above"—whatever was

evil, to the "below." Notwithstanding that the wisdom of modern times has taken a new and more intelligent view of the universe, and familiarity with the organization of the universe has presented these terms in a new light, we still use them in a figurative sense, and will undoubtedly continue thus to use them so long as the world endures. The human mind ever aspires for something better and better. The terms "high," "above," "up," etc., are just as forcible to stimulate these aspirations to-day as they were five thousand years ago, and five thousand years hence they will be just as potent as they are to-day, notwithstanding the physical relation we bear to these terms.

Humanity seems to forget and to belittle the present. We hear continually of the glories of the past, and of the glories of the future, but we hear little of the glories of the present, yet the present is full of opportunities of doing good. In this respect it becomes more glorious than either the past or the future. Many a great and noble act is done in the present—an act that will glorify it in the future. The "living present" seems to have few charms in comparison with the "dead past" and the "unborn future." Yet the present is the time for action—the time to build the Jacob's ladder; so that when it has in turn become the past it will serve as a worthy example to stimulate and encourage the generations of the future. The present is ever a living link between the past and the future, and in proportion as our aims are high and our aspirations noble, shall we contribute worthily to this glorification of the present when in turn it shall have become the past. All can not become conspicuous for some noble or glorious deed, for such deeds are not common, and as a rule they require such exhaustive labor that few can compete for them; many have the ability, and many have the will to do, but it is seldom that the will and the ability are combined. But though few can become burning and shining lights, there are none so humble

that they can not add something to the mass of present light.

The steps that lead to immortality seldom shine resplendent in the present. Dark and baleful clouds surround the Jacob's ladder; little honor seems to lie in that direction, and few seem to be endowed with the spirit to lift up the present, and in the spirit transport themselves to the future. Few seem to turn their eyes to the past and to read the lesson there inscribed, and the while acknowledge the debt of the past. The great majority of mankind live only in the present—they think little of working for the future. With the utmost selfishness they grasp the fruits of the past, and even extol them, but have little regard for the real work necessary in the present to make the future worth living for.

Noble deeds in the present, even though accomplished with no thought of commendation from the future, in good time bear fruit which the future is very appreciative of. Even the cold, selfish nature of the present can not help admitting the quality of the unselfish deed, and to this admission add some praise for the nobleness of the act. There are too many selfish persons, however, who belittle the present and glorify the past, and content themselves with saying that the past was the "golden age." They will not help make the present a "golden age" to the future, and will not even think of "lending a hand" to some struggling brother bent on a labor of love, and to advance the world another step toward perfection. He is, to them, impractical, or merely ambitious; they do not seem to realize that one of their fellow-men can be stimulated with an idea of personal forgetfulness and inherit some of the spirit that prompted in the past similar action, and which they have been loud to praise. They have done the cheap work of praising the past—the tendency of which was, unknown to them, to stimulate the same spirit in some of their fellows; so even in their selfishness and depreciation of the *present*, they are unwittingly—

though not with sacrifice—helping to build the Jacob's ladder toward the infinite good. Unconsciously the vain and selfish man often becomes a factor to defeat his own aim in life. Even the light in which he presents the good deeds of the past have a most powerful effect in developing kindred spirits in the present—spirits that will glorify the present, even as the spirits of the past immortalized the past and made it worthy to receive commendation from the most selfish men.

We know what a dream is—how real and yet how mysterious. We dream as we live. Our conceptions may be higher than our lives. Our lives are more or less controlled by the mere worldliness about us. Our aspirations are for higher things than our daily acts and surroundings would seem to indicate; yet in our dreams we at times get a glimpse of our higher nature. The spirit within occasionally reveals itself to us, and we catch a glimpse of the Jacob's ladder. The aspirations of the soul are stimulated, and, for the moment, lifted above the world. The soul, as it were, ascends and descends; the higher we cultivate our powers, the higher will the ascent be, and the greater the blessing that will descend with it; the finer we develop the soul while in the body, the better it is prepared for a future condition.

We much resemble the stones on the shores of the ocean. The stationary stone gathers moss, and has always been typical of thrift and steady habits. In this respect let it remain. But we can, if we will, also read a worthy lesson from the "rolling stone." The rolling stone gathers no moss, and therefore is not typical of worldly gain, yet it is typical of something higher, typical of advancement; and, in general, how incongruous is great worldly prosperity and honors with genuine refinement and higher attainments. The soul must have a practical support; the higher the condition the less it is likely to be "bound by fleshly powers." But advancement must not be interpreted to be that low ambi-

tion that seeks mere worldly rank and forms combinations only for the sake of gratifying the lower nature. When a person holds a high position simply on the basis of selfish gratification, he holds the same to the detriment of his soul, and is most surely "bound by fleshly powers." What is gain "here in the flesh," will be gain in the future; what is lost or not gained here will be loss in the future. The discipline of life is good, but by the lower natures of the world it is often made more trying than there is any necessity for. If there should be "woe" to any man, it would seem that it should be to him who obstructs the advancement of a soul here, and refuses to "lend it a hand," and makes it difficult and trying for that soul to ascend the Jacob's ladder. The "rolling stone gathers no moss," but it obtains polish, symmetry, and perfection. As it comes in hard contact with the world it receives and gives, and the while becomes more and more prized for its artistic combination and perfection of lines and colors brought out by the years of conflict; imparting to others what itself receives from them, the contribution is mutual. The circle was the symbol of many exalted things—of infinity, eternity, and the line of limit, the extremity of man's powers, and the ancient symbol of Deity. The perfect stone, after many days—yea, years—comes to symbolize and teach these sublime truths. Many and many a time the waves force it up the strand, and many and many a time it seeks the dark and quiet ocean bed, and at times it would seem that it would get beyond the reach of the waves; but the winds blow, the seas rise, that which was buried far from the beach is by some tremendous wave again brought to light, and again rolled up the strand, receiving blows from contact that the weaker and obtruding parts shrink from, yet which completes the perfection, and leaves it the "perfect stone" that symbolizes and teaches infinity, eternity, and the grandeur of Deity. Good deeds done in the body are golden rounds to the Jacob's

ladder. The fruits of our labors are not all revealed to us. We may, at some propitious moments, catch a glimpse of them along the vista of time, but we are not permitted to see them as the future will see them. We see and enjoy the fruits of the past. The seeds must be planted—the deeds done—ere they produce fruit. In the present we plant; in the future we reap. The whole world suffers from cruel deeds of wrong and bigotry. When we see this, and, as intelligent beings, review the past and see the good that has resulted from noble acts and sacrifice on the part of those who contributed golden rounds to the Jacob's ladder, it is surprising that at this day intelligent persons will continue in such acts as they must know are wrong and injurious. Because they happen to be so powerful in the present that they can divert the evil from themselves, they have little concern for the result upon others. If these men of the world were wiser, and would look over the record of the past, they would see and understand that even the "judgment of this world" appreciates and holds in dear remembrance such kind and generous deeds as have advanced mankind, while it has the utmost contempt and deprecation for such deeds as have brought and maintained misery and oppression. One of the strangest things in this life is how a man, or a body of men, forming an institution, can believe in a happy future, and yet will not contribute to the development thereof; who will remain indifferent, and let goodness "go to the wall," when they could prevent it, and leave some record to their name of having contributed toward the advancement of their race. The historian relates these deeds—they go down in story, drama, poetry, and art. He who does a noble act is enshrined as one of the world's helpers, and he speaks to the world as long as these agents endure, while the name of him who has obstructed the advancement of mankind, no matter how high his station, goes down in infamy.

In the present, he who entertains lofty ideas for advancing mankind is generally termed impracticable; but when, after many years, the world advances to these ideas, it discovers that they and not the humanitarian were impracticable. The world is running in an impracticable groove. The wise man suggests an improvement, but, because it interferes with a strong and prevailing selfish element, the "men of the world" cry out against it and call it impracticable, and this cry is all-potent to hold it in check, and practically rob the world of its opportunity of immediate advancement.

The more we help the present, the more we advance the future; the more practical we are in the present, the better we make for the future; the more we contribute to the building of Jacob's ladder, the better will be the condition of that ladder, not only to elevate our own souls, but the better opportunity will we leave for those who come after to ascend its golden rounds. In an advanced world the present should bear the same relation to that which is to come as the true and humane parent bears to the child. It should do all in its power to advance the coming future, to make the present bright, hopeful, and free. This does not ask us or direct us to "cast pearls before swine." We are asked to *advance* the "swine," to advance the low to the high, not at one jump, but step by step. The selfish man does not like this; he does not wish to contribute to such a grand Jacob's ladder; he only wants to raise a little narrow ladder all by himself that none others can climb. True goodness is not stimulated by mere worldly gain. Goodness built upon any such foundation as that would not amount to much, hence the moral law governing this point. We must do good—contribute to the golden rounds, golden in the sense of good acts, labor, and sacrifice. In this way, and in no other, are souls truly advanced. The small and narrow soul believes only in the advancement of a few, *including itself*. How different would this appeal be to the selfish in-

instincts of the world if it were heralded forth from authority on high that souls could not advance until they were sufficient in numbers, power, and force to overcome the world and to gain heaven by power of goodness or preparation, in a similar manner as good students advance to the higher grades of scholarship. The abolition of human slavery was at one time considered a most impracticable thing, and those who advocated it were thought to be fanatical; yet where is the intelligent man of character to-day who would reinstate this evil of the past, or any of the evils that the moral elements in man have fought and subdued? A brother comes to the front, and even succeeds in advancing animals, in preventing cruelty to them, and every step he has taken in this direction not only elevates the animal, on a practical basis, making him worth more, but it helps mankind in general upward; for we are so constituted that no good or no evil act can be done unless all within its range are more or less affected.

At present the world more than ever before realizes that it is better to love than to hate—that is, theoretically, men accept the principle; but it is one thing to understand high maxims, and quite another thing to have the will to put them into practical operation. Centuries ago they had as fine a moral code as we have to-day, but they needed strong walls and bolted doors to protect their valuables. Even in our day we still need them, but in a less degree. If good maxims and high moral codes merely would advance us, we have enough already for a thousand worlds. What the world needs in all things, in the moral as well as in the physical sphere, is common-sense practice, putting to use more and more the wisdom thus far accumulated, and personally realizing that it is better to love than to hate, that it is our duty simply *to do the best we can* under all circumstances. Let the world awaken to its responsibility in this respect and it will build the Jacob's ladder higher and higher, and obtain therefrom a better

and more encouraging view of the promised land, the realization of the dreams of the prophets and sages of all times. Utopia will then no longer be a mere dream; the ladder that is set up on the earth will reach up to heaven, and the angels of God will ascend and descend upon it. We shall have not only a greater interest in the *above*, but also in the *below*, for that which is *below* will receive more and more encouragement to rise toward the *above*. We will not only glory in the past and future, but have an additional interest and care for the present. The records of the world are better kept now than they were in the past. May our acts of "good-will toward man," our charity and interest in poor struggling humanity, be such as will meet the high approbation of the future. Those who may come after, in proportion as these records reveal to them that we of the present have done our best to prepare the way for them, in making the world more beautiful and pleasant, will have a higher regard for us.

Our pay will not, however, be merely in what may seem to be empty praise, although the praise of the future will be no vain thing, but, as before stated, our highest praise, pay, and satisfaction will be the reaction upon ourselves. In doing good to others we do good to ourselves, and strengthen our souls, whereby we may climb high up the Jacob's ladder that we have helped to raise toward heaven.

ISAAC P. NOYES.

A GREAT critic is responsible for this bit of wisdom: "Convexity expresses animal vigor, concavity, intellectual strength. The stroke of the pencil interprets your instinct in a moment. Strength of will throws the head back, curves the breast and throat out. It is the line of defiance, the sweep of action. With maturity it adds rotundity to the form. And so, on the other hand, your reflective man draws himself in, as if introspection and concentration of faculties absorbed and bent the purely physical."



COLLINS' ODE ON THE PASSIONS.

I THINK that most people who have studied the "Ode on the Passions" will agree with me that this singular poem could scarcely have been written by one of constant, orderly habits of thought, by one of trained literary method, for in that case it would not have exhibited its spontaneous outflow of sentiment or its freedom from conventional terms of expression. Collins was an excitable, freaky man, restless under any restrictions, impatient of conventional forms. He wrote as the mood seized him, and his poetry expressed his mood. Intense in feeling, demonstrative and open, his pen flowed responsive to the thought and impulse of the hour.

His education was of the old-time character, as it concerned the constitution of mind and faculty; the new school of induction had not yet been applied to the origin and analysis of mental states, yet he grasped the fact of the manifestation of emotion by gesture and language, and to a degree exceeded the metaphy-

sicians in ability to illustrate the phases of such manifestation.

The ode is a masterly composition, aside from its poetical excellence, as a vivid delineation of the characteristics of the more prominent emotions of the human mind. In no other author of the eighteenth century, it may be said, can be found so condensed, yet so accurate descriptions of fear, anger, hope, revenge, jealousy, etc., in their essential influence upon the conduct. These qualities, or phases of character, are represented as living beings in a sort of convention, each actuated by a similar impulse to show his or her power as a musician. The first or introductory stanza runs:

"When Music, heavenly maid, was young,
While yet in early Greece she sung,
The Passions oft to hear her shell,
Throng'd around her magic cell;
Exulting, trembling, raging, fainting,
Possess'd beyond the Muse's painting.
By turns they felt the glowing mind,
Disturbed, delighted, raised, refined:

Till once, 'tis said, when all were fired,
 Fill'd with fury, rapt, inspired,
 From the supporting myrtles round,
 They snatch'd her instruments of sound ;
 And, as they oft had heard apart,
 Sweet lessons of her forceful art,
 Each—for Madness ruled the hour—
 Would prove his own expressive power."

In these few opening lines the poet impresses us with the fact that man is a



FEAR.

compound of feelings and sentiments vastly differing from each other; that his mind is the theatre of "a greater drama than is ever performed on the mimic stage," as Carlyle once said. He skillfully intimates that the individual expression, which he proceeds to describe, is not the outcome of balance, control, equipoise, but of a disturbed condition; they are distinct in themselves, "apart," because "madness ruled the hour." When the mental faculties act normally they are in combination; hence they interact, are controlled, regulated, tempered, and their manifestation in the conduct is, as it were, an abstract conclusion. Given a purpose with but one organ of the sentiments to actuate it, what would be the result but failure? The man so acting would be called fool or lunatic. However excellent that sentiment in its essential nature, in its sole influence upon one's conduct, it would only develop irregularity and discordance. Mr. Collins points to the character of Fear, thus:

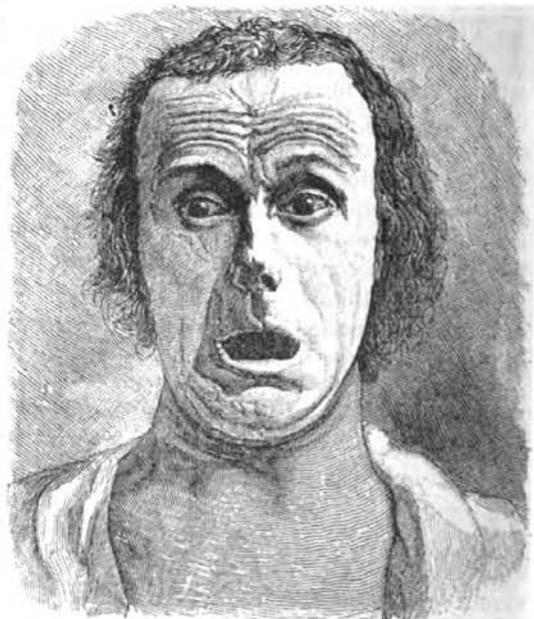
"First Fear, his hand, its skill to try,
 Amid the chords bewilder'd laid ;
 And back recoil'd, he knew not why,
 Even at the sound himself had made."

Every impression here is that of apprehension, mistrust, dread. No sound that is heard, no action that is seen,

produces any other effect upon the faculty than that of dread. The organ of Cautiousness in the phrenological system stands, like a watchman at the gate of the citadel, to give warning to the intelligences within of the presence of anything. When strong it is watchful and alert, suggesting ideas of danger where there may be no warrant at all for them; but that is its office—to guard the man against falling into error and danger. Balanced by a trained intellect and well-developed moral sentiments, it is a most valuable member of the mental congress.

"Next Anger rush'd, his eyes on fire,
 In lightnings owned his secret strings ;
 In one rude clash he struck the lyre,
 And swept with hurried hands the strings."

Anger as here exemplified may represent the effect of two or more of the lower propensities in combination, particularly Combativeness and Destructiveness. The force and reckless action of the character shows these to be most influential. I have already hinted that



TERROR.

Collins' view of the mental economy was founded upon the old theory, and he probably looked at Anger as a compara-

tively simple emotion. That anger which "sins not" does not belong to the type he represents at all. Here we have the unrestrained, mad outburst of fury that destroys.

In the artist's interpretation by his pencil of the expression of Anger, we can read clearly how great is the mental disturbance that can produce such a change of countenance. The broken-up features declare the utter want of coherence between the faculties—they that should be sweet, tuneful bells in their harmony, have become jangled out of tune, and at war with each other. The tender, delicate, kindly emotions are completely overpowered and inert, while the selfish and energizing forces are turbulently dominant, rendering the man no longer human, but a raging brute.

The poet suddenly changes the action of his verse; the furious, rampant measure becomes subdued and passive:



HOPE—THE CONVALESCENT.

"With woful measures wan Despair,
Low, sullen sounds his grief beguiled,
A solemn, strange, and mingled air,
'Twas sad by fits, by starts 'twas wild."

Another combination of influences produce this effect. It is a morbid condition—all excessive mental action is



RAGE OR ANGER.

DESPAIR.

morbid—but this is particularly suggestive of disease. The insane, affected by despair, are the most difficult to treat, the least likely to recover. This mental state is the most unbalanced and one-sided of all conditions, for the reason, specially, that the despairing man has lost his individuality. He has no purpose, aim, or

ambition; he is unaffected by the provings of reason, the experience of others. All is lost, and he settles down miserably into the sole employment of contemplating his misfortunes; sullenly or sadly insisting that the world has nothing good in it for him. He says, with Milton's evil spirit:

"All good to me is lost,
Evil be thou my good."

He is influenced by the organs of the middle side-head chiefly, Cautiousness and Secretiveness being active, but the influence which temperament exercises is in Despair most marked, and it is a morbid, diseased influence casting a spell of weakness over the whole intellect and organic stimuli.

Another transition, and we are introduced to a most pleasing phase of character:

"But thou, O Hope, with eyes so fair,
What was thy delighted measure?

Still it whisper'd promised pleasure,
And bade the lovely scenes at distance hail.
Still would her touch the strain prolong;
And from the rocks, the woods, the vale,

She call'd on Echo still through all her song,
And where her sweetest theme she chose,
A soft, responsive voice was heard at every close ;
And Hope, enchanted, smiled and wav'd her
golden hair."

Here we have a masterly piece of word painting. We are shown how Hope inspires agreeable thoughts and expectations in a constant series, in the mind that possesses it, as a strong element. The prospect that it unfolds is always one of beauty, and its promises are multiplied by greater. The idea of Echo responding to Hope's call is a most skillful conceit, and carries the idea of the sweetly gratifying reflection of a hopeful disposition upon itself, as well as upon the feelings of others.

Collins' delineation of the sentiment is quite in keeping with the phrenological analysis. All that he ascribes to it fitly belongs to the one function of Hope—in its effect as an active principle upon the human mind. It promises; the "lovely scenes" it feeds the imagination with are "at distance," and for the most part kept there, as rarely does realization fill the "cup of expectancy." Hope is a leading, inciting faculty, tending in right relations to encourage one to persist in effort, to falter not at obstacles, and even to deem failures no valid pretext for relaxing endeavor. There may come sorrows, grief, sickness, but the star beams in his horizon and supports him in severest trials.

A hopeful person is an acquisition of importance in society. His pleasant voice, sprightly manner, and always sunny face carry good-cheer wherever he goes. Dulness yields before him, and depression, for the time at least, loses its clutch upon the heart, and sadness finds in his buoyant influence grateful relief. "What reinforcement we may gain from hope" in every ill of life!

" And longer had she sung, but with a frown
Revenge, impatient, rose,
He threw his blood-stained sword in thunder
down,
And, with a withering look,
The war-denouncing trumpet took,
And blew a blast so loud and dread,

Were ne'er prophetic sounds so full of woe,
And ever and anon he beat
The doubling drum with furious heat,
And though sometimes each dreary pause be-
tween
Dejected Pity at his side,
Her soul-subduing voice applied,
Yet still he kept his wild, unalter'd mien,
While each strain'd ball of sight seem'd bursting
from his head."

The course of the ages has been strongly animated by the forces which are chiefly related to the physical side of human nature. History is, for the most part, a record of contest and war, in which the more enlightened nations are victorious. Consult the past of Germany, France, and England, and we find that these countries have been almost constantly engaged in sanguinary conflict with each other or some minor nation. Scarcely has the smoke of battle been dissipated and the people gotten ready to pursue the vocations of peace when another "misunderstanding" has arisen, and there resounded the cry, "To arms!" Some real or imagined encroachment, some sneering imputation of weakness or cowardice excites the over-active Destructiveness and Combativeness, and there is a demand for blood. It is not Justice—simple, equal—that is sought, but Revenge; not the chastisement of foes according to their offence, but their complete subjection or destruction by the cruel sword and implacable fire.

In the composition of Revenge there are no gentle elements—all are fierce, arbitrary, inexorable. Pity, and all the tender graces that make up the beautiful in character, have no place or influence in the mind when Revenge controls—they are suppressed, dejected. All in vain are their "soul-subduing voices applied"; the master feeling of the hour gives them no heed—though they be at its very side it keeps its "wild, unalter'd mien."

" Thy numbers, Jealousy, to nought were fixed ;
Sad proof of thy distressful state ;
Of differing themes the veering song was mix'd,
And now it courted Love ; now, raving, call'd
on Hate."

In these four lines the poet has made

an admirable exposition of the effect of that disturbance of the social organs commonly called Jealousy. A writer



JEALOUSY.

has alluded to it in another place as a passion wonderfully varied and complicated: "One form of it may be produced by the activity or excitement of two or three organs, another by the excitement of a dozen. As a feeling of envy merely, it is simple as when it shows itself through a mortified state of Approbation and disappointed Hope, some other having borne off the desired palm. As a feeling of envy coupled with malice, it may, in the absence or dormancy of the moral sentiments, combine the influences of the passions, including Approbation, Secretiveness, Cautiousness, Combativeness, Destructiveness, Constructiveness, and the intellect, and work up a vicious plan for the overthrow of a rival with surprising skill and success." The feeling may enlist even higher faculties and show varying degrees of refinement, and we find it prevalent in its most intense forms among people of delicate organization who are given to avocations of art and literature; "the very qualities of talent and taste which make them seek excellence and enter the lists for success and celebrity lay the foundation for the morbid action of those qualities which supplement this unhappy disposition."

When the social or love elements are at the basis, the greater the number of faculties employed in forming an attachment, the more painful the feelings when that attachment is interrupted. "An animal or a man in whom only Amative-ness is offended, is appeased when the rival is vanquished, or so removed as not to offer further opposition; moreover, there remains no unkind feeling toward the mate. With higher natures, in whom Conjugality, together with Friendship, the intellectual, the moral, and esthetic faculties take part in the composition of the love emotion, we find the Jealousy, on account of any infidelity or disturbance of the love relation, quick, sensitive, intense, and powerful." Hence it is seen how varying, transitional, and vacillating the phenomena of this feeling may be, and how utterly impossible to represent it accurately in all its phases, with the aid of the artist's pencil.

The face on the right of the three in the engraving at the head of this article indicates the combined emotions of Mistrust, Envy, and Jealousy.

"With eyes upraised, as one inspired,
Pale Melancholy sat, retired;
And, from her wild, sequester'd seat,
In notes, by distance made more sweet,
Pour'd thro' the mellow horn her pensive soul;
And, dashing soft from rocks around,
Bubbling runnels joined the sound,
Thro' glades and glooms the mingled measure stole;
Or o'er some haunted streams with fond delay,
Round, a holy calm
diffusing,
Love of peace and
lonely musing,
In hollow murmurs
died away."

The limning of this stanza relates to an exalted form of melancholy, not that type which is ordinarily met in society; it has nothing of the morbid, or of sullenness, or envy; it proceeds not from de-



MELANCHOLY.

jection consequent upon failure of one's schemes of ambition; it has little to do with disappointment or loss in material things,—but it is a feeling born in an earnest, refined, and yearning spirit. The vein of sadness manifest in it is not due to grief; the paleness comes not from distress of mind because of affliction, but is rather the evidence of deep thought on conditions of the world around that should not be. How the feeling operates in the nature is delineated by the gentle, pathetic movement of the verse, and its effect upon others is not depressing, but instructive and



MERRY—JOLLY.

elevating, suggestive of quiet, soothing thought, turning the attention to scenes of peace and contentment.

“ But oh, how alter'd was its sprightlier tone !
 When Cheerfulness, a nymph of healthiest hue,
 Her bow across her shoulders slung,
 Her buskins gemm'd with morning dew,
 Blew an inspiring air that dale and thicket
 rung :
 The hunter's call to Fawn and Dryad known !
 The oak-crown'd sisters, and their chaste-eyed
 queen,
 Satyrs, and sylvan boys were seen
 Peeping from forth their alleys green ;
 Brown Exercise rejoiced to hear,
 And sport leap'd up and seiz'd his beechen
 spear.”

Here we note a contrast of the most lively character with the last picture.

The lines trip along buoyant and bright. The poet deals with a subject now that evidently is most congenial. He loves the sunny meadows, the cool aisles of the forest; there is inspiration in the world of pure and simple nature for his heart and brain, so that the tide of life moves in his veins more vigorously, and his mind is refreshed and energized. Hence it is, I think, that the reasoning of this stanza partakes so much of the physical or physiological side. Good-nature, hearty, stimulating geniality depends greatly upon health, and health is best found in the pursuits of outdoor life. There must be opportunity, says the hygienic teacher, for recreation; the mind must be relieved at times from the dull and trying strain of constant toil, and the body must participate in agreeable exercises if the balance of faculty would be preserved. Collins points us to the sports and avocations of the field and wood as to influences that divert the mind from its serious round of duty and give it normal freshness and vivacity, while they reanimate the frame that has become enfeebled by the want of activity. But cheerfulness may exist with a sickly habit of body, as we know people who are the life of their circle, yet have been invalids for years. Therefore the disposition is the result primarily of mental organization, while physical condition, temperament, and surroundings, although exerting a powerful influence, are secondary. Cheeriness of temper begets cheeriness. A genial, happy spirit will dissipate depression and gloom in others and inspire them with new purposes. Blessed is the cheerful soul !

Something kindred to Cheerfulness is the next and last emotion described :

“ Last came Joy's ecstatic trial,
 He, with viny crown advancing,
 First to the lively pipe his hand address'd,
 But soon he saw the brisk, awakening viol,
 Whose sweet, entrancing voice he lov'd the best.
 They would have thought, who heard the strain,
 They saw in Tempe's vale her native maids
 Amid the festal-sounding shades,
 To some unwearied minstrel dancing ;
 While, as his flying fingers kiss'd the strings,

(see p. 219 for conclusion.)

A METAPHYSICIAN'S ANALYSES ANALYSED.

IN his well-known and very able work "On the Study of Character," Prof. Alexander Bain endeavors to show that the subjective method is sufficient for the analysis of mental faculties, and illustrates it from his own point of view by the consideration of several of the faculties recognized in the Phrenological system. Three of these analyses we shall attempt to discuss in this article. First, that of

PHILOPROGENITIVENESS.

In the treatment of this organ, Bain pursues his usual method of trying to account for all the manifestations ascribed to it by Phrenology. He very elaborately shows that the function of Philoprogenitiveness, pure and simple, is so narrow in its scope that the organ may be eliminated from the analysis of the human constitution. In his mind the love of the beautiful, the tender sentiment, the sentiment of power, the habit of bestowing care, the scope or ideality, and the self-regarding sentiments generally, all concur in producing the parental emotion.

Now, let us examine for a moment the effect of all these powers to produce parental love, and discover, if we can, whether they account for all the feeling embraced under this organ. In the first place, Bain wishes us to understand that one element in parental love is the parent's love of the beautiful; that is, an infant or grown child is so full of natural beauty that a mother can not help loving it; in other words, the mother's attraction toward the child is because it is beautiful. There are but few parents who would concur in such an explanation of their love. How often does parental love manifest itself more strongly in tender and affectionate regards for their most deformed and homely offspring. The cripple, the ill-favored daughter, are oftentimes more loved than the sound and well-formed children. The tender sentiment might come in in the case of

the deformed or weakly-developed children as a motive of parental love; but why should it operate so exclusively as to produce that pride and anxious love which one has for their own offspring? Under the promptings of the tender emotion, mothers ought to love other children as well as their own. The tender emotion, from its very nature, does not seek out any one particular object on which to bestow affection. It is the feeling which is an element in the love one individual bears to another, irrespective of age or sex. Why, therefore, should it give rise to exclusive love for children, which is a characteristic of a true mother? The sentiment designated tender emotion by Bain is too general in its scope to offer any solution of the problem of parental love. It is one of those metaphysical terms, like memory and perception, which embraces too much to be of any practical use in an analysis of mind. What we want is not general terms, but individual elements. We are seeking the root-germs of those feelings which build up the vast fabric of human thought and activity. Tender emotion has no specific direction; it is as much an element in Amativeness, Adhesiveness, Benevolence, and Conjugal Love as it is in Philoprogenitiveness, and therefore fails to account for parental love even when taken in combination with the other sources mentioned by Bain. Nor does the sentiment of power explain all that is embraced under the organ of Philoprogenitiveness. To say that a mother loves her children because they submit to her authority is an assertion which few mothers would admit; oftentimes the most disobedient and unruly are not only loved, but are even enviable pets. And it is also a truth, which every observer of human character has witnessed, that mothers in whom parental love is strong spoil their children through overweening affection. Besides, we have here in this endeavor of Bain to account for parental love by other sources

than a pure and simple instinct, a combination of the most conflicting sentiments, all operating as elements to produce a feeling of affection for one object. Where has Professor Bain bestowed his metaphysical consistency in this case? We are asked, first of all, to regard the love of children as a product of the sentiment of the beautiful; then comes in tender emotion, and then that most antagonistic sentiment, the love of authority: and all these are to concur in producing parental love. When we reflect that each of these sources, singly and in combination, may all be directed alike to love any person, how can we say that they account for that strong feeling in a true mother's breast which history and observation show burns with an undying brilliancy, which has made many a woman lay down her own life for her offspring?

If we leave metaphysical speculation for a moment and apply a little common-sense observation, we will find the organ for the love of offspring fully established; but Bain objects to the employment of observation. He puts aside the evidence supplied by Dr. Gall, and says that the old method employed by metaphysicians is the best way to solve the problem. This method consisted of a series of questions addressed to the consciousness or experience of mothers. Now, upon what authority does Bain declare this to be exclusively the metaphysical method, and not recognized by phrenologists? In addition to observations made upon the cranium of persons noted for peculiar talents, Drs. Gall, Spurzheim, and Combe not only interrogated these persons individually as to their characteristics, but also instituted inquiries concerning the traits of character of the persons examined among their friends and neighbors. Now surely this method, if not the same as that employed by the old school, was a great deal more scientific, inasmuch as its field of operation was wider and the opportunity to make and verify such interrogations exceedingly good. Here Bain evidently has made a vigorous attempt to destroy the organ of

Philoprogenitiveness by the self-introspective method, but without success; and finding that metaphysical subtlety can only offer a few suggestions which might account for parental love, he begins to feel the necessity for some surer ground, some more definite proof, a feeling which many an astute philosopher has felt before him; but unfortunately Bain seeks that proof in a return to the old school of metaphysics, and declaims against Dr. Gall's method. I could show how inconsistent Bain is in making this statement when contrasted with certain admissions or concessions made to Phrenology in other parts of his book, and shall do so in the complete treatise of which this article is but an extract. Bain does not grasp the full value of Gall's method of investigation. He does not clearly see that the highest proof we can have for anything is positive and negative proof. It is strange that one so fond of mathematics as Professor Bain can not comprehend how valuable the signs plus and minus are. What more convincing proof can be found than positive and negative evidence? Since the days of Gall his method of proof in experimental philosophy has become the predominant and almost the sole one, with this difference only: whereas Gall took his subjects for examination as nature supplied them, the experimental school produces artificial subjects; but the evidence is the same in both cases, positive and negative. For explanation of this proof and an estimate of its value, I must refer the reader to an earlier part of this essay. If we have failed to arrive at a knowledge of an organ for parental love by self-introspection, there is nothing left for us but to fall back upon Dr. Gall's method.

ACQUISITIVENESS.

In this there is nothing new. It is simply the old metaphysical method of accounting for this function by the love of power, the necessity of accumulation, or the benefits incident upon the acquisition of wealth. All of these influences operating separately, or in combination.

will produce the function of hoarding assigned to the organ of Acquisitiveness. If it were permitted me to meet Bain by a reference to the phrenological methods of proof, it would be an easy matter to dispense with all his objections at once. But as it is, I can not go over the whole range of metaphysical analysis in the discussion of each organ. Much of the argumentation employed under the discussion of the functions of other organs is applicable to this. I can, therefore, only mention a few strong points which lead us to infer that the function of Acquisitiveness is a real element in the constitution of man. It is obvious to all that many individuals possess an exceedingly avaricious spirit, not only in great matters, such as wealth-power, but even in small things. Some are greedy and avaricious for mere trifles, which have no value in themselves, and do not exalt those who possess them in power or influence. We can assign no motive whatever, and, least of all, any of the great motives mentioned by Bain, to account for this avaricious disposition. How many persons, for instance, keep a tight hold of everything they acquire, from a golden fortune to a cast-off garment! There is no real necessity in the retention of many things which the wealthy retain. The love of power, the necessity of existence, ought to weigh equally with all classes, yet we find a vast difference between men in the hoarding capacity. Some people hoard where there is no possibility of gaining popularity and power, and where even the necessities of life are sacrificed to the all-engrossing passion for accumulation. The character of the miser, pure and simple, can not be accounted for by any of the principles laid down by Bain. The instincts of animals also throw much light upon this subject. We must admit that the necessity for existence is equally important to all animal life; yet the squirrel, the bee, and the ant are more acquisitive than a very large class of animals. Shall we trace this acquisitiveness in the squirrel or bee to the fact that they have more

wisdom to see the necessity of laying up a store for the coming winter? This is hardly the case, for the animals which do not acquire are just as intelligent as those who do. The difference is in an elementary instinct. That is the way the squirrel, bee, or ant provide for themselves. Other animals may make provision for themselves in some other way.

There is, again, the feeling of kleptomania, or shop-lifting, which is practiced oftentimes by those who have all the wealth necessary to give them power, influence, etc. To say with Bain that these are merely eccentricities, does not materially alter the fact. We are as much called upon to explain upon what such eccentricities depend, as to explain the generic function of any organ. Then, again, if the principles laid down by Prof. Bain are capable of inducing the propensity to hoard, and the more these influences sway a person, the more acquisitive that person will become, the question may reasonably be asked, how is this acquisition recorded? Why does the function become more keen the more it is exercised, and what part of the brain is called into activity in order to record this development? Bain might reply to this question that no particular part of the brain was exercised, but all parts. Then we will have the phenomena of the brain performing as a general function that which has a specific application. In other words, as Bain has previously admitted, that there are cerebral centres for primitive functions which are exercised by giving full scope to operations which develop them, now he declares that a function which is seemingly elementary is performed by the brain as a whole. We will then have to establish general functions as well as individual functions. Now, we can conceive of the mind acting as a whole in the operations of such general functions as those of conception, memory, etc., because they are only general processes connected with all the organs; but when we are asked to consider the mind as acting as a whole to produce a hoarding spirit, it

seems to be a direct violation of clear metaphysical analysis; for, as I have said before, there is a physiological law that when a function is exercised the material organ of that function becomes larger or increases in quality. Now, does the whole brain become larger or more compact in order to take on a development of acquisitiveness, or would it not be more reasonable to suppose that a certain cerebral centre recorded this acquisitive development? Remember, a spirit of avarice is a totally different thing from a law of association or habit. We can conceive of such laws training and educating all the faculties and leaving a general impression on the physical organism; but when it comes to the fact that we have to make a feeling a propensity so elementary as that of acquisition, a general similar power to these, it demands more metaphysical demonstration than Professor Bain supplies.

It may be said, however, that Bain does not imply that the acquisitive faculty is a general power, but simply a specific habit generated by the influences which he has enumerated. The answer to this is obvious. All habits, as far as we know, leave their impression on the physical or cerebral organism; thus, for instance, if we exercise any part of the body, that part becomes more compact or larger, and hence an increased capacity to perform the function follows upon this increase. So, if we exercise the organ of Comparison, there will be an increase of the analytical function due to our increase in the size or quality of the cerebral organ on which it depends. So if we start with an organ whose function is mere brute acquisition, without regard to the end or object of these acquisitions, we can conceive of its activity being increased by the motives enumerated by Bain, and that such an increase could be recorded by this organ. But when we are asked to conceive of a propensity so elementary as the disposition to hoard to be entirely originated by certain general influences, there is no reasonable explanation,—it is like expecting soil to bring

forth flower and fruit where there has been no seed planted, because the sun and rain has been beating upon that soil. This whole question of how far general laws or individual influences can create specific or elementary functions is a puzzling one to the metaphysician, and I can not enter upon it here in detail. It is sufficient to say that the psychological method of accounting for individual differences of function by operation of general laws has failed upon many occasions, and the tendency at present is to rely less upon general laws for a solution of individual characteristics and to ascribe them to fundamental instincts.

SECRETIVENESS.

As we have dwelt at some length upon Bain's method of argumentation in our treatment of the organ of Philoprogenitiveness, we can not repeat his arguments in connection with Secretiveness, nor can we discuss his objections in detail. He asserts, however, his unbelief in Secretiveness as a distinct element in our constitution. His proof is simply the same old story: he thinks habits of forethought, experience, and prudence will account for all the difference found in persons with respect to the manifestation of Secretiveness. We admit that habit and experience do develop Secretiveness; but at the same time, every habit of a specific direction must influence some nerve-centre. Habits never originate in the germinal elements—they can only cultivate those elements. Granted an instinct to conceal or secrete, and we can easily conceive of a person's increasing that capacity by habits of association, by prudential spirit derived from pleasure or pain or from experience; but how that instinct can be created by these habits without having a cerebral centre is puzzling. If the tendency to conceal is so distinct an element in character that Bain confesses that even he has observed that some have more of it in their character than others, it seems as if there ought to be a cerebral centre; for in the first place it is a well-known truth of

physiology, that whenever an action or movement, bodily or mentally, is made, responsive muscles or nerves take on the impress of that action, and become larger or more compact. That is, there can be no feeling, thought or emotion developed without affecting responsive nerve centres, so that these nerve centres or brain convolutions must take on a change of structure, either an enlargement of the cells of the brain convolutions, or become firmer in quality. Now, suppose we develop Secretiveness by association, prudent conduct, experience, or any other method of the psychologist, where do the impressions heap themselves up, all over the brain, or in one quarter of it? If all over the brain, then Bain may be correct in assigning Secretiveness to habits of association of other faculties, but it is highly improbable. Nerve centres do not perform dissimilar functions. There is, as far as we can discern, special cerebral centres for special functions. The best way then to solve a difficulty, like the problem of innate Secretiveness, when the psychological method has failed, is to follow up investigations after the method of Gall, into the function of certain parts of the brain. These investigations, as carried on by phrenologists, may well make us pause,

and consider if, after all, we would only all set out with zeal in pushing on a method which has discovered so much, we might soon bring to perfection the science of mind and character.

Our own observation of men and animals and also self-introspection has revealed, beyond dispute, the fact that some animals are noted for cunning and some are not. If habits, or prudential measures, or experience had anything to do by way of creating this sensitive propensity, then why did it develop in some and not in others? Why, for instance, should races of animals living in the same region, in the same environment, and subjected to the same kind of dangers, yet display entirely opposite characteristics in this respect? We can only solve this question by saying that those animals noted for their cunning or Secretiveness possessed it as an inborn element in their constitution, which their manner of life helped to bring out and cultivate. Those who are not remarkable for this quality must have had but a slight endowment or none at all. There is no reason, then, why we should not examine the data laid before us by phrenologists, and add to it as much as we can accumulate by observation, and decide this question upon such evidence.

"WHAT IS LOVE?"

A MANIFESTLY good writer, but unknown to me, signing herself "Eleanor Kirk," in the February number of the *JOURNAL*, writes upon this question, and conveys what may constitute, in some cases, a warning; yet, as I judge, weaves needless mystery about the topic.

I turn my cow out to feed. How earnestly she crops the herbage. I do not share the appetite with her, but may watch the phenomena, and behold the wisdom of the Creator in the transaction. When pussy is crunching a mouse or rat, it is easy to see she likes it, and that it is well she does.

It is the place of the philosopher to

observe facts, and fit his definition to them. Do I want to know what sexual love is—and that is the question now—I must inquire of my own heart and experience, and then look outwardly. What are its manifestations, its tendencies upon boys and girls, lads and misses, young men and maidens, men and women? As we have an organization in common with the animal races, I may see what analogy teaches.

It is proper to contemplate the end intended by any propensity. I am not to be any more delicate than nature herself. Like an old doctor, I must diagnose strictly by the symptoms. I must

separate between what is inevitable and what are incidental complications. In all things, when I attempt a definition, I must see that it fits; not what ought to be, or might be, as I view or feel, but what covers the phenomena.

Now it would answer the ground we are on to say, Love is the desire of one sex for the other. The girl or girls "E. K." brings before us *were girls* or young women—nothing more, nothing less; the coachman in one instance, the teacher of dancing in the other, were intimately and conspicuously in view. They happened to be like matches to shavings—the yearning fastened to an object and swept the whole mind along with it.

These misses had not knowledge on which to found wisdom; they could not comprehend; they had not been forewarned. Love had been treated as a mystery. Compatibility for continued companionship had been no part of their studies; neither did they know the revulsion that is liable to follow all intense expectation and excitement. Their training had rendered them, in ordinary words, critical on manners. Their feelings after marriage are no more to be taken as infallible standards than their unenlightened spontaneous likings before. Charity is the only element that can cover the entire story. Some, on finding that there were disparities, have set themselves to remedy them, and now and then succeeded admirably.

I hope the writer will pardon me if I

here remind her, what some women are beginning to teach, that their sex has had an unwholesome tendency to mystify love. We need more science and less novel; we require more frankness and less affectation. The cases given, the writer would admit, are only partially stated. A vast circle of truth lies round about.

Nature, at times, teaches separation, long respites, and the like. Has there been loss of sleep? Has digestion been impaired? Is there almost a place for melancholy in the history of love? We might be benefited by voluminous reports from married and single. From women, the accounts would not be worth much unless confidence be perfect. The least fear, the least suspicion that some one would say "shame," or show disgust, and the statement would be shadowy, flickering, misleading. I have known a whole circle of women *pretend* they could not see why a certain woman, well situated, should marry. The talk suited the hypocritical, tremulous position in which society has placed the gentler sex. In a state of general enlightenment, when men shall be as noble as they ought, when creation shall be freely, yet calmly scanned to know all, to live according to the eternal truth, women will exult, not in power to deceive, but in their sweet, ready gift to communicate.

But I only sat down to write a word. Best regards to "E. K." from

IMPERSONAL.

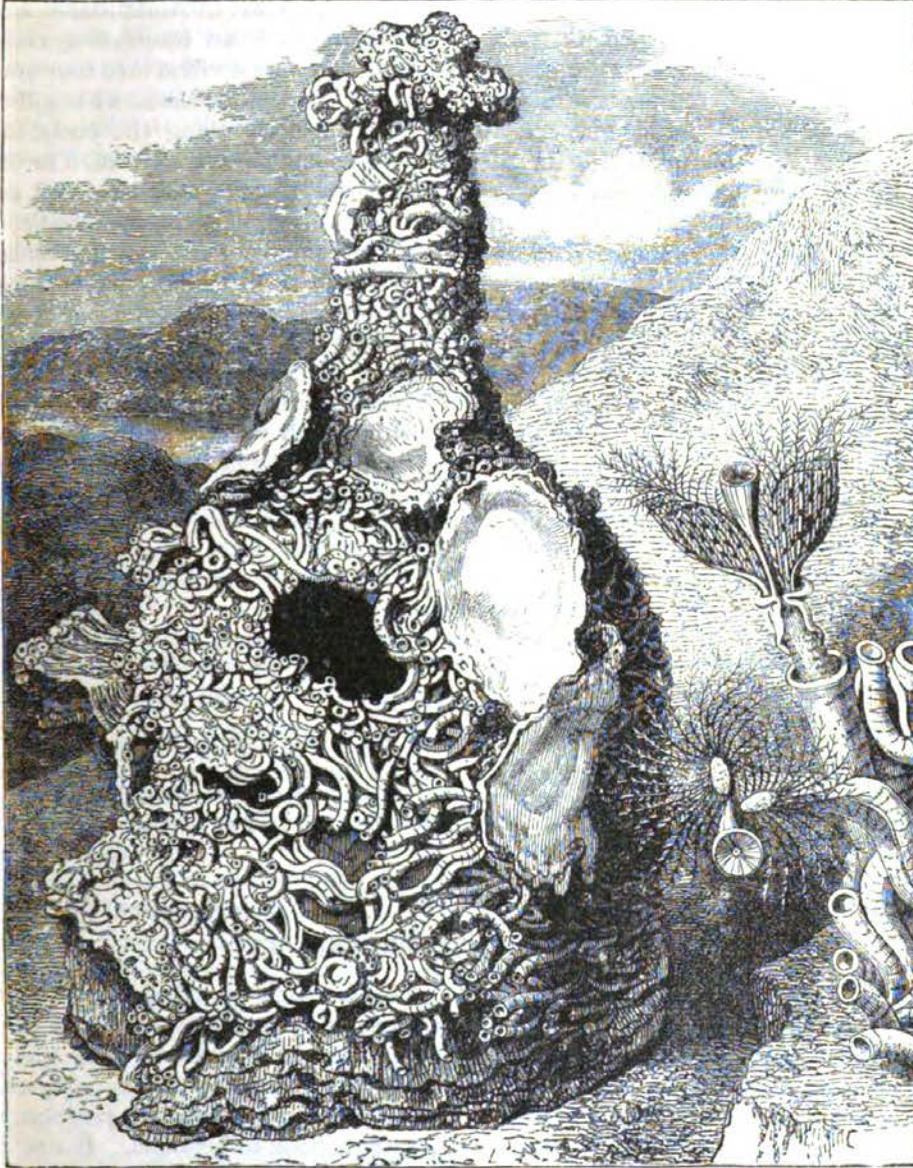
THE REED-MASK, OR SERPULA.

AS we look down through the clear water at the bottom of the sea, one of the most beautiful objects to be seen is an animal called in Sweden a mask. The largest of these are called ring-masks, or in Latin Annelidæ. They have an elongated body, composed of numerous rings. The first of these rings seems to take the place of a head. They have no regular limbs, but most of them have bristles or hairs, which they use in going

about. This class of animals is divided into four orders, the most interesting of which is the Serpula. This creature forms a tube of chalk or lime, by an exudation from his skin, in which he lives shut up as in a case-house, hence the Swedish name reed-mask or tube-mask. The animal's body has many rings, at one end furnished with a pair of hair-like gills, which resemble feathery bushes on the sides of the mouth. Round about

these spring forth a pair of threads, of which either the one or the other grows longer and widens out until it becomes a cone with the bottom turned out. This cone seems to cover the opening

grows and gets larger, the house gets larger. This kind of armor case lengthens and widens, and ought to last during the whole life of the reed-mask. If it is taken away from him and he is left



THE REED-MASK, OR SERPULA, FOUND ON AN OLD BOTTLE.

of the lime tube when the mask would protect itself against any approaching enemy. This calcareous tube, that the animal builds by exudation and lives in, is formed very artistically. As the body

naked, but otherwise unhurt, he does not rebuild his destroyed house. He seems to have lost both instinct and power for it.

One of the most common reed-masks

is shaped like a screw, and is found near the shores of the ocean. The gills are fine as feathers, of a beautiful red color, mingled with gold and violet. This animal shapes around himself a very irregularly twisted house, and some of the species dwell in numerous colonies or groups, with their shells intertwined. These groups are found heaped up on stones, ships, and other compact substances. The wider end of the shell opens, and from it the animal protrudes its head and gills, "expanding its beautiful fan-like tufts." If they are the least frightened they hide away completely in their house, which closes by the very curious appendage to their gills called an operculum.

In tropical seas we find the largest reed-masks or serpulæ, though many of them are found on the British coasts. They are very interesting additions to any aquarium, being often so beautifully colored. Our illustration represents a

flask taken from the depths of the sea, to which a colony of reed-masks or serpulæ have attached themselves. This queer flask or bottle is kept among a collection of curious animals in the Paris Museum.

The whole class of Annelidæ or articulated animals is an interesting class to study. They are divided into four orders: 1st. The Dorsibranchiata, with gill-tufts ranged regularly along the body, like a sea-worm and sea-mouse. 2d. The Tubicolæ, with gill-tufts near the head, and a shelly covering, like the reed-mask. 3d. Terricolæ, with no external appendages, except minute bristles, and breathing by respiratory sacs, like the earthworm. 4th. The Suctoria, with no bristles, but having suckers at the extremities. In this class is the leech so well known.

How much wonder and skill are displayed in the animals hidden in the sea, or moving unnoticed in the earth beneath our feet!

L. M. M.

REASON.

REASON, bold ruler in the regions of thought,
Which truth in all ages hath patiently sought,
Arises with sceptre, asserting his sway,
And claiming full homage as but Reason may.

This pioneer Prince in the march of the mind
His pathway illumined with wisdom behind;
From the known to unknown in his course ever
moves,

And the world's greatest boon to the world ever
proves.

In being wherein conscious man forms a part,
He feels the deep pulse of the great tender heart;
Of the Spirit of Good, the Infinite One,
Who fashioned Creation from atom to Sun.

C. C. COLLINS.

HOW HE STUDIED PHRENOLOGY.

SOMETIMES we meet with a good story which contains in its illustration of character excellent points of phrenological value. The following, from the Philadelphia *Evening Call*, has, in some respects, a direct relation to our subject, while at the same time it is a neat sketch of social life:

"Do you know why it is that, when a woman drives alone in a carriage, she always sits in the middle of the seat, instead of at one extreme end, as a man invariably does?"

This question was asked by a gentleman who was sitting on the piazza of a prominent hotel at Nantasket. He was not lolling in hammock or lounging-chair, but maintaining an upright position, and holding a book in his hand. If one had glanced over his shoulder, one might have read the title of that book, "Sordello."

The person-addressed was older, but he had none of the primness which characterized his companion's appearance. He looked up from his newspaper and patiently asked:

"What did you say?" in that way which one involuntarily assumes when spoken to by a person who takes things too seriously.

The other carefully repeated his remark.

"Why does she?" was the response. "Well, you know, a woman's mind—"

A wave of the hand from Mr. Waldron, as he interrupted:

"No, indeed; that's precisely what I do not know—a woman's mind. Pray do not start on any such premises as your words indicate."

"Very well, I withdraw that statement. But allow me to say that I was only going to hint that the woman's brain being better balanced usually than the brain of the male, she naturally shows in her actions that such is the case, even in such trifles as trying to maintain the equilibrium of a carriage on its springs."

There was not one glimmer in Mr. Uniac's face to show that he was not speaking with the utmost seriousness.

"There! that is the seventh within the last half hour."

Instead of replying to his friend's words, Mr. Waldron nodded his head toward a horse and buggy which slowly approached along the carriage-way and took the course which led to the west piazza. In the buggy sat a lady who held the reins; she was alone, and she was exactly in the centre of the seat.

Her position in the vehicle did not, however, impress Mr. Uniac so much as did the general elegance of her appearance. He thought her young, but he was in the habit of saying that it was impossible to tell whether a woman were young or not.

"If she be not pretty she has the effect of being so," he remarked. "I haven't noticed her at the table or in the parlors."

"Why are so many women driving alone this morning?" asked Mr. Waldron. "Is it a sign of bad weather? My mother used to say when the women flocked in the street it was sure to storm."

The speaker rose, carefully moved his

book-mark forward to the correct page, and with the closed book in his hand walked to the barometer, which hung against the wall a few yards away. He was dressed so scrupulously in the appropriate manner for a stop at a seaside hotel that an ill-regulated mind might wickedly wish some splash of mud might be thrown upon those beautiful light trousers.

Mr. Uniac glanced after him, now allowing a slightly amused look to come upon his face.

"The best fellow in the world," he was thinking, "only he's not light enough."

The gentleman returned.

"It is set fair," he said.

Instead of replying, Mr. Uniac continued gazing at some object behind his friend.

It was at a time in the morning when there were very few people on the piazza, and, as it happened, there were no ladies. Now, however, a lady had rustled round the corner and walked up to the barometer. It was the lady who had just driven up alone, and, as Mr. Waldron would have added, on the middle of the buggy seat. She rustled rather more than was of the best breeding, and she ostentatiously ignored everything but the barometer. Still she managed to let fall her fan, and Mr. Waldron, being the person nearest her, moved quickly forward and presented it with uplifted hat.

She raised a pair of eyes with considerable sparkle in them, thanked him, dropped them immediately, and walked back out of sight.

During this slight scene, Mr. Uniac had steadily inspected her. When she had disappeared he made the announcement to his friend, who had gained his side, that he did not believe in her.

"I am very grateful that I am not as cynical and suspicious as you are," replied Mr. Waldron with some emphasis.

He was thinking, with a slight emotion of pleasure, of the smile in the lady's eyes—a smile, of course, given to him because he was what he was, and had called it forth. In that brief space she

had made him think that the smile would have remained dormant had any other man handed her fan. You see at once that this stranger was a very able woman.

If Mr. Waldron never sees her again he will forget the look in twenty-four hours; if he does meet her, he will remember it.

"Don't you know her?" asked a voice belonging to a tall man who had sauntered nearer and withdrew his cigar from his mouth to ask the question.

"No," said Mr. Waldron, with the air of a man who also did not wish to receive information from the source whence it was likely to be offered.

But the tall man was not abashed.

"That's Mrs. Wylie, a widow; stylish, ain't she? The women are making quite a fuss about her, so my wife says. They say she is so much of a lady, and so smart; tries to get her own living. If she earned those rags she is smart. Anyway, she has managed to get the ladies here to take her up, and they are in conclave now in one of the parlors about having her give one of her lectures in the hotel."

"That accounts for it!" exclaimed Mr. Waldron.

"Accounts for what?"

"The women alone in buggies."

"Oh!" remarked the stranger, looking rather curiously at Mr. Waldron, and then he added:

"A good many have driven over from other hotels, and they are mostly the kind that drive themselves."

Lest Mr. Waldron might make some observation about the position taken by these ladies in their respective buggies, Mr. Uniac asked:

"What is her subject?"

"Phrenology, and she examines heads. She makes a good deal of money at the different watering-places. I suppose there is something in Phrenology. Anyway, when a man has yachted and bowled and played billiards until he is bored to death, it is refreshing to have his head examined, and he is glad to pay a woman who is a good deal of a lady five dollars

to do it, and have a marked chart, so he can keep his bearings ever after."

The stranger inserted his cigar in his mouth, discovered that it had gone out, and while he was kindling it the two friends walked away.

"It will be rather entertaining to hear her," said Mr. Waldron. "I am sure she has talent."

"No doubt. She may be able to tell you whether or not you can understand 'Sordello,'" said Mr. Uniac, with a laugh.

Mr. Waldron laughed also.

"When you do understand a few lines, let me tell you it's worth while," he replied.

Three days later it was thoroughly advertised in that hotel and the neighboring houses that Mrs. Wylie would lecture on the evening of the 13th, and that for a week thereafter she would have rooms at the hotel and give phrenological examinations.

Mr. Waldron and his friend were in the audience, and the most fastidious could find no fault in Mrs. Wylie's manner, or in her discourse. Mr. Uniac did not wonder that the best women had "taken her up," and he began to suspect that his own first judgment had been too harsh. There was acute power and much insight in her remarks, delivered in an easy, informal way, and in pleasant, well-accented voice.

Mr. Waldron, too credulous to be keen, too sincere to suspect, listened with great attention, and when, after the lecture, several people sat down in the chair near where Mrs. Wylie stood that she might pass her hands over their heads and give a cursory summary of their characters, he announced to his friend that he had curiosity enough to try the experiment.

Then there immediately recurred to the suspicious Uniac his first impression of this woman, and that, with his knowledge of his friend's simplicity, made him say:

"Don't be absurd! I can't see why people will make such idiots of themselves!"

Mr. Waldron smiled good-humoredly.

"I shall be in good company," and he took his place a short time after in the chair, and at the same time Uniac walked out of the room, too impatient to remain.

He strolled as far as Strait's Pond, and as the evening was fine, he hired a boat and rowed out across and back again, feeling that he was far more sensible than those who remained in that warm room.

When he reached the landing it was half-past ten, and the moon was just rising. A party of ladies and gentlemen were coming along the wharf, and he was quite sure he heard Mr. Waldron's voice minutely explaining how the pond had been flooded.

Was the lecture over then? It must be, for by Mr. Waldron he saw the figure of the lecturer.

"How has that man, with all his money, remained unmarried?" he asked himself, "and as simple as a child, too."

In another moment his friend saw him and called to him to join the party. There was just the south-west wind to drive a sail-boat lazily across the pond this warm night.

Mrs. Wylie turned expressly to look at Mr. Uniac and to invite him to be one of the company.

"I really ought to protect Waldron," he thought, and gave his consent with coldly-uttered thanks.

Apparently the sail was gaily enjoyed, for while there was a great deal of talking and laughing, and coming back some one began a song, the rest joined in with what skill they could, and Mr. Uniac, who could not sing a note, listened with the pleasure one usually feels at such times. He could hear his friend's melodious baritone mingling with the rather thin soprano of Mrs. Wylie; he also noted that Waldron with quiet persistence kept his place near the phrenologist, and that at every available moment they resumed what appeared to be an absorbing conversation.

Mr. Uniac was so sincerely attached to his friend that he viewed all this with horror. He had not judged him hitherto to be susceptible to feminine charms.

Perhaps that lack of sensitiveness was all that had saved him from the catastrophe of marriage. Perhaps, also, this unknown woman who lectured was worthy even of a man esteemed by Samuel Uniac; but then it was not at all probable, and this thing really must not be allowed to go on.

At a change of sail Mr. Uniac took occasion to step over and sit down on the other side of Mrs. Wylie, who, however, did not notice him save in the slightest way, and who continued her conversation with Mr. Waldron, and kept it up in such a way that the man who had intended to intrude could not hear a word of it.

The whole affair began to be very irritating to him. He sat back and folded his arms with something of the air of an offended hero in a novel; and it was sufficiently evident that he did not wish to be addressed by any one.

At midnight he found himself walking along one of the hotel corridors toward his room, with Waldron by his side. It did not mend matters to have Mr. Waldron say heartily:

"Capital sail, wasn't it? Very pleasant hour."

"Very," sarcastically, although Mr. Uniac was perfectly aware that his friend never knew sarcasm from sincerity; that such shots always went over his head.

"Come into my room and smoke a cigar on the little balcony," went on Mr. Waldron; and his invitation was accepted in silence. The silence continued as the men puffed. Mr. Uniac was meditating how he could best utter his warning, and he believed his companion to be musing upon the moments spent beside Mrs. Wylie.

"Do you know what I am going to do?" asked Mr. Waldron, flicking the ashes off his cigar with sudden animation.

"Make a fool of yourself, I should judge," was the answer.

"Oh, no; I think not," cheerfully. "I am going to study Phrenology; rather superficially, of course, but still I mean to become able to examine heads in an

amateur sort of way, you know. Perhaps such knowledge might prevent one from being taken in, eh?"

Mr. Uniac groaned, and Mr. Waldron looked at him anxiously.

"You are not ill?" he asked. Mr. Uniac had rapidly come to the conclusion that words of warning would be perfectly useless, and he was helped to that conclusion by recalling the look he had seen in Mrs. Wylie's eyes. What could words of friendship avail before such a glance? Why waste them? He had thought of an expedient.

"I was a trifle seasick," he answered boldly. "I am often not sick till I get on land."

"But the pond was like glass. You see, from the way they flood it—"

Mr. Uniac sprang to his feet, waving his hand to his friend to desist. Mr. Waldron obeyed, but looked at him anxiously.

In a moment Uniac turned and said, calmly:

"I am better. Mrs. Wylie is to teach you Phrenology, I suppose?"

"Yes; she told me she could spare me a half hour, from eleven until half-after, every forenoon. She said I had no idea how interesting the science is."

"That's precisely what I have always thought!" exclaimed Uniac, enthusiastically. "I have always intended, if it ever came in my way, to investigate in that direction. Do you think, Waldron, I might go with you and take a lesson at the same hour?"

To this base proposition the other hesitated perceptibly before replying.

"I will ask her," he said at last.

"I don't see how she can refuse," was the brisk reply. "It's all the better for her the more pupils she has."

"Of course," feebly.

After that the talk declined into absolute silence, and Mr. Uniac soon went off to his own room.

For some reason, as he sat down in a chair, and looked long and intently before him into vacancy, he did not feel his usual sense of exhilarating self-approval;

and when he went to sleep he dreamed that he was a duenna of the ugliest and most revolting kind, having charge of a fair youth of thirty-five summers, whom all women wooed, but whom only one might marry.

Nevertheless when the time came for the first lesson in Phrenology, it found him resolved to hold Mr. Waldron to his word.

"It would be altogether too bad to have that good fellow gobbled up by a widow who is plainly searching for some one to devour."

With this thought in his mind he waited for the end of the half hour and greeted Waldron with extreme friendliness when he came along the piazza from Mrs. Wylie's private parlor.

"She says you may come to-morrow," was the announcement.

The lessons began by Mr. Uniac being obliged to endure a treatment of utter indifference from Mrs. Wylie, and to witness at the same time the very attractive manner with which she turned toward his friend, and explained to him, and softly smiled at him, and lowered her eyes to him.

"It is so very kind of you, Mr. Uniac, to become interested in the science," she said with a poorly veiled scorn, when he made his greeting to her.

"It has always been my wish to know more of this way of reading character," he replied loftily.

"I am grieved that your wish should have been ungratified for so long," she answered, and Mr. Uniac thought, "Confound the woman!" and bowed in silence.

She turned away from him, saying to herself, "He shall not come here to make fun of me," and that lesson was conducted in the highest and most solemn manner.

At the end of a week Mr. Uniac was obliged to confess to himself that to sit and see a very charming woman smile upon another man was the most exasperating position he had ever taken. He felt that it was very nearly intolerable.

Through the remainder of each day he was in such a savage mood as hardly to be a safe animal to remain among his fellow-beings.

He ceased to talk of the phrenologist to his friend, believing such talk to be folly.

"He'll marry her, if she will allow it; and I might as well give up such a daily bore. I am certain if I take in any more Phrenology in this way I shall shoot somebody before another week is out."

But before another week had fully expired, Mrs. Wylie was called away by the illness of a relative. She had been doing such a good business at Nantasket that she was to return as soon as possible.

This was the bulletin given out by her friends on the day of her departure.

"I don't see but that our occupation is gone," grimly remarked Mr. Uniac on the next day, as the hour of eleven approached, and there came upon the two men a sense of vacuum.

"I mean to give myself a review of what I have learned," said Mr. Waldron, drawing out a note-book. "You know I advised you to take notes. It's much the best way."

Mr. Uniac shut his mouth to keep back the ejaculation which rose to his lips, and walked quickly away. He presently returned to remark:

"I suppose *you* know when she is coming back."

"She thought it probable she would return in a week's time," was the answer in the precise tones which, for some reason, were just now extremely irritating to his listener.

"Is she going to write to you?"

"I said I should naturally be anxious to know how her cousin is—"

"Naturally," said Mr. Uniac in what, if he had been performing in a melodrama, would have been described as a hissing whisper.

"And," placidly went on Mr. Waldron, "she consented to write a word that should tell me."

"She is very kind. Where is she?"

"Just the other side of Boston; Hyde Park; at a Mr. Melcher's."

"I did not expect such accurate information. We should be thankful we have secured nearly a fortnight's daily lessons in Phrenology, and have enjoyed the charming society of the professor of *the* science for the evenings during that time."

These remarks in Mr. Uniac's most satirical tones.

"Certainly, it has been a most enjoyable time," replied Mr. Waldron in a mild and sincere voice.

During the four days that followed, Mr. Waldron spent a good deal of time reviewing, and Mr. Uniac performed the ordinary duties devolving upon a visitor at the sea-shore, and if he missed his lessons in any way he made no sign.

On the fifth day he took the boat to Boston, casually remarking that he was going to do so. Reaching Boston he went directly to the depot of the New York and New England road and bought a ticket for Hyde Park. In that town he found no difficulty in learning where was the residence of Mr. Melcher, and he was shown into that gentleman's parlor, having asked for Mrs. Wylie, not sending up his name.

Mrs. Wylie entered and stopped suddenly when she saw who her visitor was. She coldly said:

"Good-morning, Mr. Uniac," and then waited.

Mr. Uniac stood looking at her with an expression which plainly revealed the feeling which had been growing in his heart from the moment the lessons had begun.

"I do not wish to be in any way false to my friend," he began slowly, "but I do not know that he has any better right to love you and to tell you so than I have."

Mrs. Wylie did not think of any reply to this, and she remained silent.

"I came here to tell you I love you." He advanced a step. He grew somewhat pale as he added, "Are you engaged to Mr. Waldron?"

"No; your fears were quite without

foundation. I am sure your friend has never thought of loving me. Besides, he knows that I have promised to marry Mr. Melcher. Still it was wise to have him well protected."

Mr. Uniac winced visibly. His face showed he was severely hurt.

"Although I am out of the track of occupation usually followed by women, the fact does not prove that I am an adventuress," she went on.

"But you are a flirt," said he, more sharply than he knew, inwardly deriding himself that he should care so much.

She smiled.

"I have never flirted with you," she replied.

Mr. Uniac bowed stiffly, murmured his good-morning and left the house, swearing, as he went down the street, that it was worse to flirt at a man than with him.

MARIA L. POOL.

A G E .

THE question of age is determined not merely by years, but by mental vigor; the physical frame may perfect itself in the maturity of early manhood, still time will work its deteriorating changes until the garment of the soul drops in tatters to its mother earth. But to those minds that "live in deeds, not years—in thoughts, not breaths," time only softly tones the crude brilliancy of youth into the riper culture of mental vigor. While we throw a glance of curious inquiry over the world of letters, we are impressed by the high and honored names of so many men of this and former generations that age seemed but to place upon higher vantage ground.

Not many months ago Victor Hugo remarked to a friend: "It might be thought that age weakens the intellect. My intellect, on the contrary, seems to grow stronger, and does not rest. It seems to me that, as I advance, my horizon grows wider, and so I shall pass away without having finished my task. I should require several lives still to write all that my mind conceives. I shall never finish."

Tennyson, Browning, Whittier, and Holmes are all men of more than seventy years, yet their muse is still fresh and young, and to each can be applied the lines addressed to our "New England Singer," by a brother poet from the sunny South:

"The test of years has left thee undefiled,
And o'er the sorrows of threescore years and ten
Shines the unsullied aureole of a child."

Bryant, Longfellow, and Emerson, a trio of great, departed souls, were never dimmed by years. When nearly eighty, Bryant gave to the press his translations of the Iliad and Odyssey. Bancroft, the historian, furnishes the example of an octogenarian engaged in literary labor at an age when one generally expects to realize the picture thrown upon the page by the bard of Avon:

"Last scene of all,
That ends this strange, eventful history,
Is second childishness, and mere oblivion—
Sans teeth, sans eyes, sans taste, sans everything."

Not long ago Professor Chevreul, of Paris, aged ninety-five, completed a course of forty lectures on chemistry. Socrates, when very old, learned instrumental music; and Cato, when eighty, began the difficult acquirement of the Greek language. Plutarch was really as old when he began the study of Latin. Dr. Johnson subjugated the Dutch tongue in his last years. Ogilby, the translator of Homer and Virgil, was ignorant of Greek and Latin until he had lived more than half a century.

Ristori, not far from sixty, has, we read, undertaken the feat, appalling to all foreigners, of learning the English language, in order to play Lady Macbeth. With these illustrious examples, a few among the many that might be cited, before us, one exclaims involuntarily, "Never too old to learn."

The "Canterbury Tales," masterpiece of "Dan Chaucer, well of English undefiled," was one of his latest productions.

"Paradise Lost" was composed by Milton after he had lost his eyesight, and was descending the vale of years. Dryden was nearly seventy when he began the translation of Virgil. Monaldesco, at a great age—it is said he was one hundred and fifteen years old—wrote the memoirs of his own times. Jon Thorlakson, the poet and preacher of Iceland, worked as a blacksmith and herdsman, but, when seventy, finished a translation of "Para-

dise Lost," having rendered it and Pope's "Essay on Man" into the Icelandic language.

As we ponder on the doings of these great minds and their achievements, these lines seem to possess an added significance :

" He liveth long who liveth well !
All else is being flung away :
He liveth longest who can tell
Of true things truly done each day."
A. L. ROCKWOOD.

H O P E :

THAT earnest longing and soul-yearning which reaches up and gathers strength and courage to live and strive and conquer. When we faint by the way, and are well-nigh given up to despair, hope beckons us on and points to the beautiful beyond. What could we mortals do without it? We all need it, young and old. Just as soon as the young child can understand what is said to it, hope shows itself in a thousand ways, and its little heart is broken if its hopes are thwarted; but soon again it shines out through the tear-dimmed eyes, and it looks forward to the next happy time with hope and joy in its little face.

The happy, careless school-boy comes running home from school full of hope and eager expectancy for the enjoyment of the play-hour which is to follow. How his hopes are dashed if he finds mother has some errands to run, or father left word to have some wood chopped—then his face loses its happy look, and he goes about his duties only in hoping that he may finish in time to have a little sport.

So with "children of a larger growth." Our lives are made up of hopes realized or broken. Our eyes are often dim with tears or our hearts full of happiness, as our life-hopes are fulfilled or not. Who would check the happy day-dreamer as he pictures the scenes in which he longs to take a part? or the castle-builder in his magic flights of imagination, e'en though the structure must crumble? There is a joy in soaring away from the

real to the unreal, and experiencing for a moment the fruition of hope. We have to learn that the higher we climb the deeper the fall. We shall be obliged to return to the real things in life, and we may have to come down, like the boy in "Old Ironsides," who

" In sport up shroud and rigging ran,
And on the main-truck stood";

he had to "jump far out into the wave" to be rescued.

We, too, have to come back to the troubled waters of life and its petty annoyances. If we can gather courage and hope by our flights, let us indulge in them; but if the disappointment is too keenly felt when we have to return to the work of life, we had better not dream, lest we can not bear the waking. Happy is the mortal who is so well balanced that he can gather the bitter and the sweet, and make use of both, in the growth of the soul. Let us hope on, hope ever, and be stronger by what we learn when we are worsted in the battle, and not mourn because there are burdens to bear. It is cowardly to shirk work and only drink in the sunshine of life.

Heaven pity the poor starved soul who can not see a ray of hope in the future. We who are hopeful naturally know nothing of the deep grief and despair which fasten their icy fingers around the heart; and for the time o'ershadowing reason, bid their victim either end his life and trouble, or leave him in the shadows of despondency from which only a kind,

hopeful spirit, and an earnest, helping hand can rouse him.

Hope is a kingly birthright, and happy is its possessor. We should try to infuse courage and hope in the life of a less

favoured brother. We must nerve ourselves to do battle for the right, hoping always for the best results; and if we now and then catch a sunbeam, we must be content. MRS. KATE WESTON.

MAJ.-GEN. CHARLES G. GORDON.

"CHINESE GORDON."

THE first impression which this picture makes upon the mind of a student of character, is that of harmony of development. If we look for eccentricities, for marked peculiarities, for developments of face or head, that indicate angularities of talent or disposition, we fail to find them. The classic cut of the features indicates refinement and intensity, rather than extravagance in any special direction. If we study that head and face, we see the student, the accurate thinker, the critic, the man of fine perception, delicate instincts, and sensitive spirit. He is specific and clear in his thoughts, and sincere in his feelings; there seems to be nothing extravagant or exorbitant or strikingly peculiar. There is nothing unbalanced, warped, or one-sided. One would suppose that he would make clear-cut and nice distinctions; that he would come to conclusions promptly and intuitively, and reach the desired object of his aim with as little waste of time, distance, or material as possible.

The Mental temperament is indicated by the form of the head and features, while the Motive temperament appears to be fairly marked in the apparent strength of the hair; but as our inferences are made from a wood-engraving and not a photograph, the hair really may be finer than it seems to be in the picture; yet we are unwilling to think

that the hair is fine, because, if so, there would be less of strength and hardihood than would be necessary to form a basis on which, or by means of which, those keen and intense mental emotions and intellections could be wrought out. We put polished steel on the edge of an axe, and solid iron in considerable amount behind to give it momentum. So human character and temperament need the Mental to give brain and mind, and the Motive to give strength, force, and earnestness to the manifestations.

It would be difficult to think of any pursuit in which such an organization could not take a distinguished part. In that forehead, so smooth, rounded, and finely developed in the lower and middle section, we see the power of gathering knowledge, of scanning and criticising it sharply, and of remembering that which is worth retaining. We see in that full development of Causality the power to plan; but we see in the organization more of that dashing intuition which anticipates, forms prompt judgments upon facts revealed, and facts dawning, with enough of philosophy to hold them in place. He must be an excellent judge of human character. If our reader will look at that sharp fulness in the centre of the extreme upper part of the forehead, where the organ called Human Nature is located, he will notice the indications of capability to read character at

sight, and of unusual power to deal with different kinds of talent and character. As he approaches men, he forms an opinion just as a musician does who has a musical score laid before him; he sees whether it is E flat or F sharp, and assays the instrument according to the

drawing a line upward and backward from the external angle of the eyebrow, a special fulness will be seen, which is the region of Constructiveness and Ideality. These would enable him to form plans and to study conditions, and appreciate the complicated facts which sur-



written score, and strikes it rightly every time. This gentleman meets strangers and seems to know at a glance whether they are to be persuaded, reasoned with, dominated, or deferred to, and which method will be in harmony with the person addressed, and best calculated to bring about desired results.

If the region of the temple be studied,

round him. This enables a man in military matters to plan well the campaign or an action, and especially to change the formalities of his plans in the midst of battle, when affairs have gone differently from what had been anticipated.

The width of the head above and about the ears indicates force, courage, thoroughness, and policy, with a good degree

of economy. He would attend wisely to business; he would manage shrewdly whatever belongs to finance; but his special power is in governing men and in managing affairs which require clearness of thought, rapidity of judgment, and boldness of action.

The reader will observe a great elevation in the crown of the head, and length from the chin to that part; this indicates natural instincts in the direction of authority, dignity, determination, power of holding himself and his cause, and those who are subjected to him, under absolute control; his word is law to his friends, his subordinates, his horse and his dog; nor does he need to speak loudly or with excitement to command respect and win obedience. He would govern his horse more by his word than by the bit.

Such an organization could be an artist, an orator, a writer, a mechanic, a merchant, a commander, and administrator of affairs, and move smoothly and successfully in whatever he had a fair chance to do. Every indication of his temperament points toward a high order of civilization and culture, as if for generations his ancestors had been active, studious, trusted, and responsible. Such an organization seems to be an excellent outcome of the best conditions of civilization.

As a military man he would be remarkable for his dignity and simplicity of character; a strict disciplinarian; and wounded men in the hospital, if he were to pass through, would feel as it were (if we may use the term) the atmosphere of their mother or elder brother as he walked among and spoke to them. He could hardly be other than the favorite of his men, and the beloved friend of those who are admitted to his companionship.

A strong, yet well-balanced head, a refined, delicate, intense and yet enduring constitution, he is a most interesting subject of study, and carries combinations of wisdom, skill, judgment, practical talent, dignity, force, and thoroughness, which will make him more completely the master of his surroundings, and a more easily-working factor in affairs than can often be found. We should expect his voice to be smooth, definite, magnetic, and clear as a bell when excited and in command. *H s* is a happy combination of resemblance to a refined and superior mother, in the degree of about two-thirds, to one-third of resemblance to a wiry, hardy, enduring, positive father.

The man whom the English Government has appointed to undertake the solution of the Egyptian difficulty, and in whom the utmost confidence seems to be reposed, was born in 1830, and came of Highland Scotch stock that has some military reputation, his father having been a lieutenant-general. He was educated for the army, completing his course at the Woolwich Military Academy, after which he entered the Royal Engineers, and served in the Crimean war, where the duties were far from those of a dress parade. After the treaty with Russia had been signed, he was appointed one of a Commission to determine the lines of the new frontier between Russia and Turkey. In 1860 he was sent to China, where he took part in the great struggle of the Chinese Government against the Tai-Ping rebels. He was given command of a force of Chinamen said to have been organized by an American, and displayed high capacity for so young a man in this novel position. He trained and disciplined the rude Chinese soldiery, relieved fortified towns, drove the Tai-Pings beyond the Great Canal, and effectually suppressed the great rebellion, thus contributing, perhaps, more than any other man to

save the Empire. For his services, the highest military honors were bestowed upon him by the Chinese Emperor, while the reward of his own Government was a commission as Colonel.

After filling the post of Commanding Royal Engineer at Gravesend in 1865, and of British Vice-Consul at the Danube Delta, his presence in Egypt was earnestly requested by the late Khedive, Ismail Pasha. The condition of Egyptian affairs was in some points even worse than it is to-day. The aim of the Khedive was to put down the infamous slave-trade and to re-establish his own waning power. "With the help of God," said General Gordon on assuming command, "I will hold the balance level."

He was offered £10,000, or \$50,000, a year for his services, but declined to accept more than \$10,000; and for five years he worked with great energy in behalf of the Egyptian Government to bring about a better state of affairs. At Khartoum, on the White Nile, in the Lake Country, and in Darfour and Cardovan, he was found actively carrying out his plans, disregarding fatigue and exposure. He sought to put down the slave-trade, and did so in part, and brought about a condition of order that had not been known scarcely ever before. The impartiality and humanity of his work among them gained for Gordon the general favor of the Egyptian people, and this probably is one chief reason for the belief of the British Government in his fitness for the mission it has given him.

The present Khedive, Tewfik Pasha, has never been favorably disposed toward Gordon on account, as may be supposed, of the soldier's fair dealing toward the wretched Egyptian fellah, and three years ago the latter resigned his office. Since then he has served in turn in India with Lord Ripon, in the Mauritius, and in the Basuto war at the Cape. Of late he has been engaged in archæological and similar studies in Jerusalem. He had come to London with a view to obtaining the leadership of the scheme for opening the Congo River to commerce under the aus-

pices of the association of which the King of the Belgians is the head, when the gravity of the Egyptian crisis caused the English Government to insist upon his taking the appointment for Egypt. Thus far his presence in the land of the Nile has not resulted in much aside from the establishment of a basis of operations. The extent of country which his operations must cover, and the success of the false prophet, El Mahdi, against the Egyptian forces, together with the diplomatic complications that involve any attempt of the British Government toward active hostilities in Egypt, render General Gordon's task a very difficult one, notwithstanding his familiarity with the country and its diverse tribes.

What we have read of this soldier's career reminds us somewhat of the late General Custer for its spirit and *élan*. Some of the incidents of his life in China awaken our admiration because of their romantic indifference to those physical interests which men generally account of chief importance. After he had suppressed the rebellion he was summoned to Pekin to receive the thanks of the Imperial Government, but he refused to go; and when envoys came with a present of 10,000 taels, he drove them out of his tent. Some may account this conduct as indicating immaturity of mind, the freak of a dashing, high-spirited young fellow; but they who know him give him credit for perfectly unselfish devotion to the cause of humanity. The Empress of China sent him a medal. It disappeared unaccountably, but some time afterward it was discovered that Gordon had erased the inscription on the medal, sold the gold for ten pounds, and sent the proceeds to the sufferers by a cotton famine in Manchester.

THE hot water remedy for stomach troubles appears to have taken greatly in Washington. It was a favorite remedy with many members of the last House. In the House restaurant there stood a tank of hot water, where members could help themselves.—*Washington paper*.



CAUSATION AND PREVENTION OF INSANITY.

INSANITY is one of the greatest misfortunes that can befall a human being. To lose one's reason is to lose all, and more than all. Many, in dread of such an event, have taken their own lives rather than risk their chances of becoming mad. Advancement of civilization brings no relief from insanity. On the contrary, insanity has increased with the advance of civilization, and is increasing to-day faster than ever before. Massachusetts, in 1870, in a population of 1,457,351, had 3,194 insane persons. In 1880, in a population of 1,733,085, there were 5,127 insane persons, a much larger proportionate increase of insane persons than of population. In 1867, according to the Fifth Annual Health Report, Massachusetts had one insane person for every 1,546 of the population, and in 1870 one for every 1,350 of the population. Insanity in other parts of our country is increasing in about the same rate. The same rapid increase is found among European peoples. The universally well-educated Scandinavians have 3.4 insane in each 1,000; the well-educated Germans have 3 in 1,000; and the less well-educated Romanic nation 1 in 1,000. Dr. George M. Beard, in a paper read before a meeting of the Medico-Legal Society of New York, said: "Insanity is a barometer of modern civilization. Though existing in all recorded ages and among all peoples, and known under various

and inconsistent names and superstitions, yet is rare, and always has been rare, with the savage, the barbarian, and the partly enlightened. There is no race, no climate, no institution, no environment that can make insanity common, save when united with and reinforced by brainwork and indoor life. . . . Insanity is increasing more among the poorer than the higher classes. Civilization grinds hardest on the poor, depriving them of the healthful influences of barbarism, without the compensating advantages that the higher classes enjoy. Poverty makes us insane, and insanity makes us poor. In England the increase of insanity among the poor during the last forty years has been 300 per cent., while the population increased in the same time only 45 per cent.

CAUSES OF INSANITY.

"The causes of insanity are various. What would be sufficient to make one person insane would be endured by another without any such effect. Nearly one-half of those who become insane are persons who are hereditarily predisposed to insanity. They are said to be hereditarily predisposed because insanity is known to have affected some of their ancestors. Such persons are believed to be more likely to succumb to exciting causes of insanity than other persons are. In cases where the ancestors have had

hysteria, epilepsy, catalepsy, or other general nervous affections, the descendants may be affected with insanity. Insanity is more common in males than females, between the ages of twenty-five and forty-five, than at other periods of life, and in the unmarried than in the married. 'The exciting causes,' says Dr. Hammond, 'are both moral and physical. Of the former, emotional disturbance, grief, terror, disappointed affection, anxiety, great joy, etc., stand first in influence. It is doubtful if moderate intellectual exertion ever, of itself, causes insanity. It is only when the brain is worked night and day, to the deprivation of sleep, and without sufficient change, that insanity results from mental labor. Continual thinking on one subject is the most effectual way of producing insanity by the action of the brain. Among the physical causes, drunkenness, the use of opium and other narcotics, excessive venereal indulgence, masturbation, blows on the head, exposure to severe heat or cold, the puerperal state, and certain diseases may be referred to.'"

Dr. Kirkwood, in his annual report of the Pennsylvania Hospital for the Insane in 1876, states the supposed causes of 7,167 cases of insanity treated in that hospital during thirty-five years: To ill health of various kinds are ascribed 1,200 cases; to intemperance, 637 cases; loss of property, 230; disappointed affection, domestic difficulties, grief, loss of friends, etc., in all, 570 cases; mental anxiety, 441 cases; intense study, 52; intense application to business, 56; want of employment, 40; puerperal state, 284; masturbation, 93; exposure to the sun or other intense heat, 72; opium, 27; tobacco, 17 cases. "In the hard struggle for existence," says Maudsley, "men of inherited weakness, or some other debility, break down in madness. Overcrowding deteriorates health, favors scrofula, phthisis, and faulty nutrition, all of which open the way to insanity; and whatever deteriorates mental or bodily health may lead to insanity in the next generation." Griesinger, an eminent German authority

on insanity, says: "Misery and privation are its chief causes. Bad nourishment, hunger, cold, fatigue, and over-exertion, which of necessity accompany misery, are important physical causes of insanity, and; hence, of race deterioration. Typhus, intermittent fever, tubercular, constitutional diseases, and anæmic states—all scourges of the poor—induce insanity. The monotonous and hopeless condition of many factory hands, depriving them of all interest in a higher life, is favorable to dementia." The eager pursuit of wealth, says an eminent authority, as well as the dread of poverty, have their ill effects. Men are excited, anxious, absorbed in the state of the market, petty gains, meanness, and dishonesty, until their moral nature and character are sapped and their nature deteriorated. Overwork, depression, exhaustion, want of culture, poverty, drunkenness, licentiousness, are all favorable to the development of insanity. The same author relates a number of cases of financial operators, whose speculative, selfish minds show their morbidity in the diseased minds of their children, who are either morally defunct or wholly insane.

ARE THE CAUSES AVOIDABLE?

A study of the causes of insanity will show that part of them are avoidable and removable, and others are less under the control of the individual. The inherited tendency is transmitted from the ancestors; the tendencies are not removable, but much may be done in the way of guarding against the development of the tendency. Drunkenness, which is one of the most prolific causes of insanity, may be avoided by the adoption of strictly temperance habits. Ill health, which is another frequent cause of insanity, can often be guarded against by careful attention to hygienic and sanitary matters. Over-anxiety, worry, and fretting are the exciting causes of many cases of insanity, and these causes are avoidable. In an article on the causes of insanity, in the London *Lancet* of 1873, Dr

John Hawkes gives an analysis of 3,847 cases of insanity which had been admitted to the Middlesex County Asylum from June, 1839, to the end of August, 1872. The class of patients belonged mostly to the order of artisans, laborers, small tradesmen, with a few professional men and clerks. Among the cases due to moral or emotional causes, there are attributed to anxiety in business affairs, 96; to anxiety in matters of religion, 36; to bereavement, 94; disappointment in love, 42; domestic trouble, 82; fright, 25; fretting at difficulties, 41; fretting at disappointment and losses, 148; fretting at inability to work, 33; fretting at want of success in life, 50; fretting at poverty and reverses, 47; fretting at want of employment, 109, and to intemperance, 438. It will be observed that *fretting* about one thing or another was the cause of a large proportion of the cases of insanity. Fretting is an avoidable cause; but after the habit of fretting has once been formed it is almost as difficult to break away from it as it is to correct intemperate habits; yet it can be done, and any one who has formed such a useless, injurious, and senseless habit should lose no time in correcting it.

THE PREVENTION OF INSANITY.

Prevention of insanity is to be the great work of the future. Success in treating insanity is so limited, only about forty per cent. of the cases being curable, that prevention offers a most encouraging field for effort. The means attending the efforts made to prevent disease have been attended with such encouraging success that it is believed that insanity can to a large extent be prevented. In Great Britain, by the vigorous enforcement of sanitary measures for the prevention of disease, a diminution of one-fourth of the deaths and sickness has been effected. The Registration Report of Deaths in Great Britain for the year 1880-81 represents a steady decline during the past forty years in the death-rate of that country, and estimates that from

1870 to 1880 about a quarter of a million persons were saved from death, and that three millions had been saved from a sick-bed, by means of sanitary improvements. If so much can be accomplished in the way of preventing diseases generally, the outlook for preventing insanity is hopeful.

The seventeenth annual report of the Commissioners of Lunacy of Scotland says: "It is impossible to come to any other opinion than that insanity is to a large extent a preventable malady; and it appears to us that it is in the direction of preventing its occurrence, and not through the erection of institutions for its treatment, that any sensible diminution can be effected in its amount. Lunacy is always attended with some bodily defect or disorder, of which it may be regarded as one of the expressions or symptoms. We must therefore attempt to prevent its occurrence in the same way as we attempt to prevent the occurrence of what are called ordinary diseases; and if it be admitted that, to a large extent, preventable diseases exist among us in consequence of this ignorance of the people, it is clear that we can only convert the preventable into the prevented, by the removal of this ignorance through a sounder education. Men must be taught that it is their duty, and not merely their interest, to understand the laws of health, and to make them eventually the rule of their conduct."

The late Sir James Coxe says: "Insanity is a disease of ignorance—ignorance of the human organism, and the laws that regulate it; and the only way to check its growth is by a general diffusion of a knowledge of these laws, and the use of all those means necessary for the preservation of good health. Insanity originates in some form of disease, in a deterioration of the body rather than in an exclusive affection of the nervous system. The six leading factors are: dissipation in various forms, over-work, meagre fare, lack of ventilation, and neglect of moral culture." Thus it will be seen that the first step in preventing

insanity is to avoid so far as possible the causes of ill health. The aim should be to understand and carefully to observe the laws of health as applicable to both mind and body. Excesses of all kinds should be avoided, and the golden mean pursued. Anything that tends to undermine the general health renders those who are naturally disposed to insanity more liable to become afflicted with it. By systematic effort on the part of individuals and the public it is probable that at least half of the cases of insanity might be prevented. The importance of efforts at prevention, in view of the unsatisfactory results obtained in treatment, can not be exaggerated. "The more we see of mental disease in its various forms," says a superintendent of a large asylum, "the more are we convinced that the study of *prevention* is infinitely more important than even the study of its *cure*; and that the dissemination of more correct views of the true way of living, and a more rigid observance of the laws of health and nature, would greatly diminish its frequency."

FORTIFYING THE SYSTEM AGAINST INSANITY.

Much may be done to fortify the system against insanity. To be born well is very advantageous—that is, to be born of healthy parents who had not undermined their health and strength by vicious indulgence, or by undue excitement, or worry or over-work. Many parents, by disregard of the laws of health, bring themselves into a state of nervous irritability, weakness, and ill health, and thus impart to their offspring a predisposition to nervous disorders and insanity. Many parents use tobacco to such an extent that their nerves are all unstrung, and they transmit to their children an organization which is liable to break down into insanity. Tobacco-using is doing a fearful work in undermining the nervous system of our people, and this work is already bearing fruit in the rapid increase of insanity, and the results in the future are to be still more disastrous. The use

of narcotics and intoxicants is sapping the foundation of the nervous systems of our people, and those who do not succumb themselves to insanity will leave a heritage to their children that will be likely to bring them or their children there. All those who are using tobacco, narcotics, and intoxicants, by abandoning the use of these hurtful substances and carefully observing the laws of health, can fortify their systems against the attack of insanity. A life of moral purity in all respects strongly fortifies the system against any form of insanity. The tendency of evil indulgence is progressively downwards, and the tendency of small deviations from moral rectitude is to greater ones, and at last habit binds with its iron fetters. The metaphysician Brown pointed out that in yielding once to any vicious desire, a man loses much more than the virtue of a single moment; for while the desire, whatever it may be, is increased by indulgence, the mere remembrance that he once yielded to its solicitation is almost like a license to yield again. Self-denial or self-control are important means of fortifying the system against insanity. The firmly-established habit of self-denial and self-control will do a great deal to ward off a threatened attack of derangement.

D. Hack Tuke, M.D., author of a work on insanity, says: "It may safely be asserted, however, that there is no fact better established than that we can exert our will over our mental processes to a very large extent. I would insist in the strongest possible manner upon the necessity of self-rule or control. If I believed that we are conscious automata, I should have no heart to ask a man to do this; but I believe in no instance is it more important that men should recognize their own will and the obligation of employing it to control those really automatic tendencies of the mind which often are strikingly characteristic of insanity. That which John Stuart Mill said of character is true in a degree of the tendencies to mental derangement:

'What is really inspiriting and ennobling in the doctrine of free-will is the conviction that we have real power over the formation of our own character.' The exercise of volition will always increase its force, and every time persons forcibly control automatic or irregular impulses or acts they will find it easier to repress them in future. On the other hand, if they yield to them, the will becomes weaker and weaker, and they stand a very good chance of actually becoming conscious automata."

The formation of good habits, of right acting, of right thinking, and of right living fortifies the system against mental derangement. Correct living during the period of youth and early manhood does much toward preventing insanity, and systematic efforts in that direction can scarcely fail to result in effecting a marked decrease in the spread of mental derangement.

WARNINGS OF DANGER.

Warnings of danger generally precede the outbreak of insanity, and if these were heeded many cases of the disease might be prevented even then. These warnings are frequently, if not always, associated with inability to sleep. "The sufferer," says Dr. Tuke, "is importuned by most unwelcome thoughts and even odious suggestions, which no previous experience explains, and which possibly no effort of the will removes. Or he dreams dreadful dreams. These sometimes run upon dying, the grave and coffins, and corruption of the body. Such symptoms in medical psychology are like the delicate clouds in the sky in meteorology: they indicate to the practiced observer the coming storm. It is at this point that it is all-important to realize that something is going wrong in the mental machinery; that there is a cause for all this which must be discovered, and, if possible, removed; and that as sleep and mental action are functions of the same organ, the irregularity or loss of the former is a certain sign that the integrity of the latter is

already in danger. Then, if unable to discover any special cause for sleeplessness, or knowing it, a man removes it and still is no better, I can not too strongly advise him to lose no time in consulting his physician, and rigorously obeying his prescriptions. If he neglects this one symptom—sleeplessness—he is running a great risk of losing control over his mental operations and becoming unable to apply his mind to his duties, the facile descent to actual madness being the sequel. . . . Warnings of danger may appear not only in the form of sleeplessness, but of a dull aching of the head, a sense of the brain being too large for the skull, ringing in the ears, and so forth. With these physical symptoms will be associated an inability to do the same amount of mental work as before, and a powerlessness of even reading an ordinary book requiring the slightest continued attention, inaptitude for the duties of life, and listlessness."

There are also warnings which affect the emotions which should be heeded. Slight depressions of spirit, alternating perhaps with a sense of unusual exaltation and buoyancy. Any marked change in the feelings or actions without sufficient cause should excite apprehension. If one who has been of agreeable temper and mild disposition becomes morose and irritable, or if one who has been trustful and confiding becomes suspicious, the mental condition should be examined. Generally some peculiarity, strangeness of manner, or eccentricity will be noticed some time before an outbreak of insanity occurs, and if neglected some irreparable or insane act may be committed, and the terrible nature of the trouble at once revealed. All these warnings should be heeded and treatment promptly adopted. If this were done a large part of the threatened cases of insanity might be prevented.

MODERATION IN ALL THINGS.

The prevention of insanity is to be sought in the proper training and educating of the youth—educating not only

the mind, but the heart and feelings—avoidance of undue excitement, hurry, anxiety, worry, fretting, undue haste to get rich, envying, inordinate ambition, dissipation of all kinds, and in a strict observance of the laws of health. The diet must be such as is suitable to meet the wants of the system for growth and exercise. Stimulants, narcotics, and tobacco should be avoided. A reasonable view of life should be entertained. The

mind should be kept calm, without undue depression on account of failures or reverses, or inordinate exultation on account of success. Says Bacon: "To be free-minded and cheerfully disposed at houres of meate and of sleepe, and of exercise is the best precept for long-lasting"; and it will also tend to preserve the mental powers.

H. REYNOLDS, M.D.

Livermore Falls, Maine.

EDENIC FOOD.

THE following extracts are derived from a little sheet, entitled *Joyful News*, published at Joyful, California, and are the expression of a little community that has been organized by people who live on uncooked vegetable food:

"The Edenic diet, with us, has produced such remarkable results in the way of restoring, purifying, and harmonizing the bodies of all who have faithfully lived thereon for a reasonable length of time, as there are abundant witnesses to testify, that we come before a sick and suffering humanity to offer them the right hand of fellowship, if they wish to receive these blessings, by adopting these blessed means always at hand for every one. There is no extra expense attending this method of living, for it consists simply in using such grains, nuts, fruits, and vegetables as you have been accustomed to, only taking them in their natural state, untouched by fire, which destroys their vitalizing principles, drives off the magnetic forces, and leaves them like dead and decaying carcasses, not fit to enter into the structure given unto man to live in. It is not all of life to eat food; it must be assimilated as well as digested, and made up into the body, and the kind of food we assimilate will determine to almost a certainty the kind of body we are to dwell in. If we are to have a body to serve the uses of life, it is necessary to have the best kind to get the best result, and if the old way of liv-

ing will give you that, we would say go on living that way; but you, like us, have tried that method for a long time, had much experience in getting sick, and so little in being well, that many of you do not know what good health is. If you were well for one day you would not know what was the matter. You would probably say, 'I must have lost my stomach, for it has given no indication of its presence to-day'; but you should remember that the best machine goes smoothly, without noise or jar of any kind; so should the human machine do its work, so the body would give the spirit no indication that it was there, except by the work done in obedience to its command."

In reply to certain strictures that appeared in a San Francisco publication reflecting strongly upon their special "fancy," these people say good-naturedly—and, it may be added, vegetarians are usually cool and forbearing:

"Shoot all you wish at our theories, but please come out and not stand behind the bush to do it. We, in search of truth, have for some years made an experimental study of this subject, assisted by several others, for over two years, and having been greatly blessed thereby with not a disadvantage to any one of us, we come forth with the *Joyful News*, hoping to give relief to suffering humanity. We testify to a sick world that there is a safe, sure road to health; and, to mothers whose lives have been cooked

out over a hot stove, the sunlight of freedom is now in the heavens, and they can have time to care not only for the little flowers of the household, but also for those of the garden, and the mind. Who employ the army of M. D.'s, and take the patent medicines? Is it not those who use the cooked grain and vegetables? We did this for forty-eight years; but now thank God for the new light that has made us well and happy. Taking no medicines, employing no doctors, but standing up day after day, and year after year, in what has the reputation of being the most sickly part of Kern County, near Bakersfield, we have and do proclaim that there is no more need of any one being sick, even here, than there is of their getting drunk.

"We want to hear all sides, pro and con, but do not like to see any one strike at a good cause without giving a reason, or some authority for what they say; and now, will you not make amends by doing this? Come, also, if you can, and see and hear more of the results of our work; we are ever ready to show you, and if we are able, as an instrument of

the Lord, to be of any assistance to you, or if you can give us any more light, we will ever be thankful. We do not take the negative on this question, but say there are serious objections to cooking either grain or vegetables, and we ever stand ready to prove what we assert."

A few Edenic recipes, as an illustration of the practice at Joyful, may please the interested reader:

EDENIC GRANIA.—Two-thirds oat groats, one-third cracked wheat, ground fresh every meal in a steel hand-mill or coffee-mill.

EDENIC SALAD.—One head of celery, 2 turnips, 1 onion, 1 Chili pepper, sliced and chopped fine in a chopping bowl; 6 spoonfuls of olive oil, 1 teaspoonful mixed mustard, 1 gill cider vinegar, or lime juice; salt to taste. Will keep several days in a cool place. This is to be eaten with grania.

EDENIC FRUIT-CAKE.—An equal amount of ripe, dried peaches and raisins, pounded fine, separately, in a mortar, and mixed with grania. Mold in the form of a cake, and cut the same as any other cake. It will keep for six months, and improve with age.

EDENIC PUDDING.—Two-thirds grania, one-third grated almonds, pounded raisins; moisten with liquor of soaked dried peaches, and flavor with nutmeg.

BEER-DRINKING AND DISEASE.

ALLUSION has been made in these pages more than once to the fact that the constant use of beer as a beverage is productive of insidious forms of disease, that finally, and in most cases, suddenly accomplish a fatal work. A large proportion of the attacks of sudden disease in men who have reached middle life in the apparent possession of good health, *i. e.*, in the eyes of unskilled observers, is due to the habit of taking malt liquors. Mr. Green, of the Connecticut Mutual Life Insurance Company, says:

"In one of our largest cities, containing a great population of beer-drinkers, I had occasion to note the deaths among a large group of persons whose habits, in their own eyes and in those of their friends and physicians, were temperate;

but they were habitual users of beer. When the observation began they were, upon the average, something under middle age, and they were, of course, selected lives. For two or three years there was nothing very remarkable to be noted among this group. Presently death began to strike it; and until it had dwindled to a fraction of its original proportions, the mortality in it was astounding in extent, and still more remarkable in the manifest identity of cause and mode. There was no mistaking it; the history was almost invariable; robust, apparent health, full muscles, a fair outside, increasing weight, florid faces; then a touch of cold, or a sniff of malaria, and instantly some acute disease with, almost invariably, typhoid symptoms, was in violent action, and ten

days or less ended it. It was as if the system had been kept fair outside, while within it was eaten to a shell, and at the first touch of disease there was utter collapse; every fibre was poisoned and

weak. And this, in its main features, varying, of course, in degree, has been my observation in beer-drinking everywhere. It is peculiarly deceptive at first; it is thoroughly destructive at the last."

QUACK MEDICINES.

BUT now our Quacks are gamesters, and they play
With craft and skill to ruin and betray;
With monstrous promise they delude the mind,
And thrive on all that tortures humankind.

Void of all honor, avaricious, rash,
The daring tribe compound their boasted trash,—
Tincture or syrup, lotion, drop or pill;
All tempt the sick to trust the lying bill;
And twenty names of cobblers turned to squires
Aid the bold language of these blushing liars.
There are among them those who can not read,
And yet they'll buy a patent, and succeed;
Will dare to promise dying sufferers aid,
For who, when dead, can threaten or upbraid?
With cruel avarice still they recommend
More draughts, more syrup, to the journey's end.
"I feel it not."—"Then take it every hour."
"It makes me worse."—"Why, then it shows its
power."

"I fear to die."—"Let not your spirits sink,
You're always safe while you believe and drink."
How strange to add, in this nefarious trade,
That men of parts are dupes by duces made;
That creatures nature meant should clean our
streets,
Have purchased lands and mansions, parks and
seats:
Wretches with conscience so obtuse, they leave
Their untaught sons their parents to deceive;

And when they're laid upon their dying bed,
No thought of murder comes into their head;

And then in many a paper through the year
Must cures and cases, oaths and proofs appear;
Men snatched from graves as they were dropping in,
Their lungs coughed up, their bones pierced through
their skin;

Their liver all one scirrhus, and the frame
Poisoned with evils which they dare not name;
Men who spent all upon physicians' fees,
Who never slept, nor had a moment's ease,
Are now as roaches sound, and all as brisk as bees.

Troubled with something in your bile or blood,
You think your doctor does you little good;
And, grown impatient, you require in haste
The nervous cordial, nor dislike the taste;
It comforts, heals, and strengthens; nay, you think
It makes you better every time you drink;
Who tipples whiskey will some comfort feel,
But will he to the medicine set his seal?

No class escapes them—from the poor man's pay
The nostrum takes no trifling part away;
See! those square patent bottles from the shop
Now decoration to the cupboard's top;
And there a favorite hoard you'll find within,
Companions meet! the julep and the gin.

GEORGE CRABBE.

COLLINS' ODE TO THE PASSIONS.—(Concluded.)

Love fram'd with Mirth a gay, fantastic round,
Loose were her tresses seen, her zone unbound;
And he, amid his frolic play,
As if he would the charming air repay,
Shook thousand odors from his dewy wings."

Joy is a high form of mental exhilaration, exhibited actively, not necessarily dependent upon states of the body, but exerting a great influence upon it. The most demonstrative phases of Joy proceed from a temperament in which the mental and vital elements are the stronger, but the deepest sensations of the feeling proceed from the activity of Hope, Spirituality, Benevolence, and other moral faculties associated with the esthetic qualities. Collins' portrait is a combination of the physical, intellectual,

and social elements of mind, all in a high degree of excitement, yet not discordant. The social element of Love is marked in the combination, while the sense of humor or gaiety contributes to the abounding delight. Joy avails itself of all means to exhibit its gladness, but musical instruments are especially appropriate, and those whose notes are lively, quick, and resonant, reflect the exultant play of the faculties.

The happy effect of a glad heart is charmingly described in the last line; its "thousand odors" are the healthful, animating influences that it scatters wherever it beats, and it thus becomes a chief instrumentality in elevating and improving men.

M—E.

NOTES IN SCIENCE AND AGRICULTURE.

Anthropology in Italy.—Anthropology is studied in Italy with considerable zeal, and nearly every large town has its collection and its specialist of repute. The country, as may be judged from the figure it has made in history, is rich in monuments dating from a very great antiquity. In upper Italy earth-walls have recently been discovered on the mountain-heights, which are attributed to the Celts. The plains of Lombardy and Emilia have furnished numerous remains of lake-dwellings, which have been studied by Pigorini, S:robel, and Chierici, and are represented in the collections of Parma and Reggio. Not less important are the Etruscan necropolis of Margabotto and that of the Cerlosa of Bologna. Bologna has its newly built *Museo Civico* under the direction of Gozzadini, and the accomplished geologist Capelini, who has discovered traces of cannibalism in a cave on the Island of Palmaria. The Olmo skull, which Cocchi regards as post-Pliocene, and which may be compared with the Cro-Magnon and Steeten skulls, is in the geological collection of this city. Mantegazza has founded an anthropological and ethnological museum in Florence, with Miloni in charge of the Etruscan and Schiaparelli of the archæological departments. Perugia, too, has Etruscan antiquities, and Belluci is collecting prehistoric stone implements there. Pigorini has established a prehistorical and ethnological museum at Rome, where Michael St. de Rossi has won much honor by his researches. Nicolucci, who has founded an anthropological collection at the University of Naples, has examined about a hundred skulls, and has found them to be meso-cephalic Grecian skulls, very like those still typical in the region.

A Barrel Post-Office.—Hunt up on your map the Straits of Magellan; look at the mountains hanging over; imagine the point of rock that leans the farthest out, and think of a barrel hung by a heavy chain swinging there. That is a post-office! The postmaster doesn't stay up there to deliver the mails, and no postman unlocks it; in fact, it has no key. Yet it is a grand old post-office. Ships coming along that way stop and fish out packages of precious letters that have been dropped therein, see if they can find any that want to travel their way, and, if so, they take them on; in their place they leave a package which is to go in another direction, and some day a ship comes along, studies the direction of that package, says, "Ah, I can take that," and away she sails. And the barrel swings, doing its duty day by day without being watched, sending joy to many hearts.

The Silks that Wear Longest.—Some of our lady readers will soon begin to think of replenishing their wardrobe for

spring or summer, and may not find the following advice, which comes from a good source, unwelcome:

"After the silk passes from the dyer's hands the manner in which it is woven is of essential importance. All other things being equal, goods woven with an equal weft and woof is the most durable, hence the strongest silk is the old-fashioned taffeta or glacé silk of a generation ago. Corded silks are beautiful, but between the reps of the goods are interstices for the dust to collect in, which, if allowed to remain, speedily cuts into the fabric; and no corded goods can be made without some part of the weave being heavier and exerting a strain on the lighter portion. Taffeta silks, from the lightness of their construction, are usually hand-made goods. Large quantities of inexpensive striped and checked taffetas, known as summer silks, are woven in Switzerland in a circuit of about thirty miles around the city of Zurich. Whole families of Swiss peasants, including the man of the house, his wife, sons, and buxom daughters, are employed together at hand looms. A checked taffeta under a dollar will usually outwear several silks which range in price from a dollar to two dollars a yard and are made, as silks at this price usually are, by the less durable processes of the power-loom, where the weaver never stops to tie a thread, and the delicate fibre of the silk must be tightly twisted to bear the strain of the rougher handling of wholesale work. A goods equally as strong as taffeta is India foulard, sometimes called handkerchief silk. These goods are woven in a country where the heathen workmen have not yet learned the clever shams which are practiced in the Christian lands. All foulard silks are dyed and stamped after they are woven, except in the case of pongee silk, which is the natural color of the reeled silk-web. French foulards are an inferior machine-goods, and are mixed with large quantities of 'chappe,' or short silk, which is rough and liable to break apart at a slight strain. Short silk differs from long silk—which is the continuous thread spun by the worm and reeled off at the filature—in being composed of the waste of the filature. The silk which is broken or tangled in reeling, the rough silk on the outside of every cocoon, and the silk of perforated cocoons from which the moth has emerged, are all torn apart and spun again by artificial means, like cotton or flax. Chappe is at best a species of silk 'shoddy,' and is often mixed with cotton or some other vegetable fibre to strengthen it. Large quantities of foulard goods are made in this country which are similar to the French goods. The durable 'Louisine' summer silks are woven with an even weft and woof, and are composed of raw or half-boiled silk, part of the natural glue of the cocoon being left in the goods."

The California "Big Trees."—A correspondent of *The Advance* says:

"The largest tree is the fallen 'Father of the Forest,' with a traceable height of 452 feet, and measuring 112 feet in diameter at its base—a stupendous ruin truly! The interior, a hollow cavity, probably burned out centuries ago, is sufficiently spacious to afford ample room for a couple of mounted horse-men to ride abreast for 200 feet, then dismounting, if so disposed, our cavaliers could ascend a ladder, and through a very respectable-sized knot-hole emerge into the outer world again—by no means a formidable undertaking, as we can cheerfully testify. The noble 'Mother of the Forest,' 327 feet in height, denuded of her bark, and, of course, dead, white and ghost-like, is still standing, though her top limbs are beginning to fall. The bark removed from the poor defrauded 'Mother' was exhibited at the Sydenham Crystal Palace, where it was burned with the partial destruction by fire of that building some years since. In 1853 one of the most imposing of the family group was cut down, occupying five men twenty-five days in performing the herculean work, which was accomplished by using augers, the borings being made toward the centre of the tree. Upon the top of the stump, smoothed and polished, a pavilion has been erected, and the sizable room inclosed upon festive occasions serves for a dancing hall, and is large enough to accommodate thirty-two 'sets' upon the floor, it is said, at one time.

"The Mariposa Grove, in Mariposa County, is a public domain, having been given by an act of Congress in 1854 to the State of California. It is two miles square, and from its greater area, larger number of trees and the wildness of the locality, was even more impressive to us than the Calveras Grove. Many of the big trees have been scathed by fires, particularly in this forest, where, as Professor Whitney says, they have evidently swept through again and again, greatly marring its beauty. But amid all these fierce conflicts, though scarred and battered, many of these brave old veterans have sturdily maintained their hold upon life, while others have bowed their lofty heads in the dust. There are not a few of these prostrate monarchs here in the Mariposa Grove, in the debris of whose mouldering trunks, shrubs, loveliest wild flowers and soft, velvety mosses spring up, gracefully beautifying all that remains of their former stately majesty and grandeur. Through one of the standing trees—the monster 'Wawona'—the stage road has been made to pass, an aperture not quite equal to a similar one cut through the stump of the 'Dead Giant,' in the Tuolumne Grove, through which wooden tunnel our loaded six-horse stage-coach was driven in easiest transit."

The Importance of Fewer Acres.—From the *Pacific Rural Spirit* we take some fresh reflections on this subject:

"If ten acres of land cost \$100, and if they

produce \$10 worth of crops, they are paying ten per cent. on the investment just as much as if \$100 had been loaned at the rate of ten per cent. interest. Now, there is no man who would think of living on the interest of \$100 loaned at even this high rate, but instances are not rare of men making a good living for themselves and their families from the careful cultivation of ten acres of land. We mention this fact to prove that the too frequent expression that 'farming does not pay' is not in accordance with fact. There is no other business in which a man would attempt with \$100 to support a family. Yet still there is truth in the remark, so far as it is applicable to farming as it is carried on in some sections of the country. If a man invests \$1,000 in 100 acres of land and makes only ten of them, or \$700 worth, available, he can not expect to derive a profit from the other ninety acres, any more than he could expect an interest upon \$1,000 when he had only \$100 of it invested. Our position is that land actually cultivated pays a better interest on the money invested than any other venture. The farmer can not expect idle acres to yield him a revenue any more than he can idle dollars. Unfortunately, the farmer of the Northwest has, as a general thing, nine acres of idle land where he has one productive one, and the one productive acre is expected to pay the interest on the price of the whole ten. Extraordinary management would be necessary to make this kind of farming pay."

The "Dugong," or Vegetarian WHALE.—A writer in the *Gentleman's Magazine* gives some interesting particulars relative to a species of whale, now taken to a considerable extent in Queensland, and valuable both for its oil and its use as food. Its size varies from eight to twenty feet in length; it lives upon submarine meadows of seaweed; it has no gills, but breathes air by means of lungs; its head is round and somewhat human-like, and has hair something like that of a man's beard. It is said many stories of merman and mermaid may be traced to these creatures. Their oil is said to have all the medicinal merits of cod-liver oil without its unpleasant flavor; at ordinary temperature it deposits crystals, as olive oil does in frosty weather, but on warming slightly becomes liquid and clear. The flesh is much prized in Australia, being cut off in flitches and slabs, and it is stated that "from the same animal is taken meat resembling beef, veal, and bacon."

False Information.—A good many paragraphs coming seemingly from a learned source, get into the newspapers and are circulated far and wide as facts for popular instruction, whereas they are untrue as a whole or in great part. Here is a specimen, credited by the sheet from which we take it to the *New York Sun*, but probably it is a clipping that has been circulating from newspaper to newspaper for some time:

"Pens are made of the very finest steel, and can be remelted and used again for many purposes. They can be turned into watch-springs and knife-blades, and can be dissolved and made available in the manufacture of ink. The suggestion is made that the children of the poor should be taught to collect cast-away pens, and thereby save valuable material and earn money."

Now the facts are that the steel from which steel pens are made is so thin that it can be torn like stiff paper, and it goes through such tormenting processes in the rolling, cutting, pressing, slitting, and forming, that it is a wonder that enough of energy is left to stand the bath of fire, water, and the subsequent heat of the annealing furnace and then to have any of the original life of the steel left in it. In truth, there is little of the *vivre* of the original metal left when the steel pen has done its brief duty. It would be much more sensible to gather up the oxidized scales from about the smith's anvil for making into "watch-springs and knife-blades" than to collect rejected steel pens for these purposes.

Classification of Soil.—Prof. Johnston classifies soils, according to their clayey or sandy proportions, thus :

First. Pure clay from which no sand can be washed.

Second. Strong clay or brick clay, which contains from five to twenty per cent. of sand.

Third. Clay loam, which contains from twenty to forty per cent. of sand.

Fourth. Loam, which has from forty to seventy per cent. of sand.

Fifth. Sandy loam, which has from seventy to ninety per cent. of sand.

Sixth. Light sand, which has less than ten per cent. of clay.

Sandy soils, then, are those which consist mainly of grains of sand, or silica, or flint, and is called a silicious soil. Nature never bestowed upon man a soil of greater capability of being made lastingly fertile than the sandy, light soil of New England.

Gravelly soils need no description, though there are rich gravels and poor gravels, depending upon the rocks of which they are composed, and the substances which are mixed among them. Clay soils consist largely of alumina ; that is, having such an abundance of clay that is called the "clay metal." Clay itself is a compound of silica (sand), acid, alumina, and water. It also contains potash, soda, and lime. It forms a compact, fatty earth, soft to the touch, sticky in a moist state and very hard when dry.

Chalky soils have been formed from rocks in which lime was abundant.

Peaty soils need no description, although they differ very widely.

Alluvial soils are formed by deposits of sand, loam, and gravel brought down by rivers. They are often very rich, being composed of a multitude of thin layers of mud, in which all sorts of fertilizing material is

mixed. Loamy soils contain a large portion of decayed matter, humus or muck, as it is called. Woody fibre in a state of decay acquires a dark color, and ultimately becomes mould. Loam contains a variety of ingredients, as clay, sand, lime, in addition to humus. It is a loose, friable description of soil, easy to cultivate, and as to texture is the most desirable description of land for purposes of tillage.

The Canine Curse.—Hon. F. D. Coburn said in the *American Agriculturist* :

"Observing men are of the opinion that an ordinary dog—and he is always hungry—will eat and destroy in a twelvemonth the equivalent of that which, if given to a well-bred pig, would make him weigh at the expiration of that time, 300 pounds gross; 286,000 such pigs would aggregate 85,000,000 pounds of pork, now worth at the home shipping station more than \$4,700,000; requiring to transport them more than 2,860 cars, carrying fifteen tons each, or a train more than sixteen miles long. This would represent nearly \$1,500,000 more than the entire amount paid in the State in 1880, for school, township, and State taxes combined ; it would build 9,400 school-houses and churches, worth \$500 each, or would pay the average wages of 14,000 school teachers, twice the number now employed. A condition of affairs, of which the above is but a poor outline, is at the bottom of what is each year becoming a greater and more irrepressible conflict between the wool-growers and the savage brutes that keep in jeopardy, or destroy the flocks that, protected, would enlarge and increase to the extent of producing the wool for which we now send so many millions across the sea. If the dogs are maintained as a luxury, they are a luxury we can not afford, and should give way to something less expensive, and less productive of loss and misery.

"The rearing of better classes of sheep always indicates a high state of civilization, where intelligence, comfort, and competence abound, and no more unfailing sign of ignorance, squalor, and poverty can be manifested, than the presence of a varied and increasing assortment of flea-bitten curs, unclean, and of low degree. It should not be difficult to choose between raising sheep and growing dogs."

An Effect of Irrigation.—Tulare

Lake in California is rapidly drying up. A few years ago it was thirty-three miles long by twenty-one miles wide, but now it is only fifteen by eight miles in area. This result is attributed to the destruction of the forests on the mountains, and more especially the tapping of the water-courses by which the lake is fed, and the boring of artesian wells. It is impossible for the lake to maintain itself under these circumstances, and it is doomed to eventual disappearance, as the work of irrigation will be carried on with increasing activity and its sources of supply absorbed.



FOWLER & WELLS CO., *Publishers.*
H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK,
APRIL, 1884.

FUNDAMENTALS IN POLITICAL ECONOMY.—3.

(Continued.)

WEALTH may promote strength, and may greatly contribute to popular happiness, but necessarily by no means. As we remarked in an article published some time ago :

“ There may be evidences of wealth, so far as warehouses filled with costly merchandise and private houses elegantly furnished and decorated are concerned, but these may be evidences only of moral decay, inasmuch as the rich merchandise and palatial mansions may be the creatures of selfishness, greed, and vanity, and only to be indulged in by a few pampered ones; while the masses of the people may be ignorant, oppressed, and lacking in the very necessities of life.

“ ‘ Ill fares the land to hastening ills a prey,
When wealth accumulates and men decay.’ ”

“ Rome, in the days of the Cæsars, is deemed to have been at the zenith of her power—her power as a severe and cruel mistress of conquered nations—but she was far from the zenith of her real prosperity: that had long passed away, even with the vigorous and frugal activities of her youth. The canker of luxury and the ulcer of vice were destroying the

foundations of her national existence. In the midst of material splendor she was rapidly declining, because morally she was full of rotteness.”

Aristotle, in reply to the question for what object political constitutions existed, said, among other things: “ The object of civil society is to cultivate the best part of man's nature, and to raise him from being a savage into a moral and intellectual being. If men are to live in society they must consider others as well as themselves. Rules must be laid down for their conduct, and all are not equally able to judge what those rules should be. Some see clearer than others what ought or ought not to be done. Some are better-natured than others, and are more ready to do right when it is shown them. Naturally, therefore, the ignorant and the bad must be guided in some way or other by those who are wiser and better than themselves.”

The generous and refining influences of the moral nature must have sway in the policy of government as well as in the motive of the individual to distribute appropriately the advantages of wealth.

In modern times Spain, Italy, and France have now and then presented a contrast in the condition of the ruling classes with that of the people at large, which was analogous to that of ancient Rome, and indicated the same wide separation of interests. Courtly magnificence, such as was shown in the days of the Medici, Charles V., and Louis XIV., furnishes dazzling themes for the romantic historian, but the impartial chronicler finds in the oppressed and abject peasantry of those “ gilded ” eras an occasion for shame and rebuke to their proud kings and luxurious nobles.

The political economy of such times, borrowing its tenets largely from publicist, and even philosopher, of ancient times, appears to have had reference mainly to the regulation of the income and expenditures of government or royalty, on principles which should tend to the increase of the money in the treasury; whether or not these principles conduced to the welfare of the working and producing classes was deemed of secondary importance. The idea that true government is a thing "of the people, by the people, and for the people," was yet to be formulated by rulers sprung from the people, and whose enlightened intellect and generous sympathies would have the nation's wealth distributed among its producers rather than accumulated in a government treasury, or in the safes of money-changers. The paramount interests of a state lie with the people, the masses who, by their industry, produce the things necessary to the maintenance of life, and the bulk of the *material* upon which the activities of commerce and of social economy in general are founded.

Here a great question, one of the vital issues of the day, occurs to our reflection, a matter which the political economist is called upon to adjust, and which must be adjusted upon principles of strict equity, or continue to disturb society more or less with results of loss and disaster. This is the *wages* question, or the relation between capital and labor. The very progress of civilization has hastened a sort of conflict between these two mighty factors of community growth, and the statesman must needs consider them with a judgment enlightened by the experience of the past, and with an impartial liberality, if he would reconcile their differences.

The vast developments of skill and intelligence in the industrial arts have enabled us to produce every article of necessity and luxury with but a modicum of the labor required a hundred years ago; but with the withdrawal of stress upon the muscles of the masses, we do not discern a proportionate increase of harmony and contentment among them. The great increase of machinery has multiplied production and added enormously to the wealth of society, but we do not perceive that wealth to be distributed so that it conduces to the mere comfort of the simple workman in the back tenement, while it feeds the luxurious indulgence of the capitalist in his marble palace. So long as great differences of physical condition exist between master and man, capitalist and workman—differences marked by ease and luxury in the family environment of one, and constant toil and bare subsistence in that of the other—there will be a succession of disturbances in industrial circles on account of real or supposed grievances.

One of our philosophers has said that the harmony and happiness of life consist in finding in our vocations the employment of our highest faculties, and of as many of them as can be brought into action. Accepting this proposition as true, it would follow that the system of social order which exercises a supervision of the pursuits in which the people are employed, and promotes, by all the scientific instrumentalities it may command, their respective adaptation to the spheres in which they labor, will be a powerful agent in establishing public harmony and private happiness.

We can postulate a factory in which a hundred men are employed, each of whom is well fitted for the work as-

signed him, and wherein order and sobriety are accessory elements not forced upon the men, but rather growing naturally out of the harmonious distribution of their several capabilities. We can postulate a second factory, designed for the production of similar fabrics, in which a hundred men are also employed, but whose fitness for the work assigned them individually is not made a matter of thought by the superintendent, while little or no regard is given to their moral conduct. Would it require long consideration to determine which of these factories would produce the larger quantity and finer quality of fabric? And who would hesitate in declaring that the situation of the employés of the first was happier far than that of those in the second?

The best results in human enterprise, whatever its name or nature, are secured by *organized* effort—in other words, effort that is put forth in a systematic, careful manner, or in accordance with the rationale of cause and effect. Organization presupposes bounds and limitations to individual action, not free choice of methods, not indiscriminate exercise of one's feelings and caprices. Government is organized, and, as has been already intimated in other language, that government is best that is founded upon the principles of justice and good-will. We are ready to admit that the freest government is best, but it is only best for people who understand best the meaning of freedom. They who are the subjects of selfishness, vice, and passion are not free in themselves, and incapable of putting to use the privileges of a free civil policy; they would be sure, to adopt the language of a Christian teacher, to "use their liberty as a cloak of maliciousness."

Here comes in, with some appropriateness, we think, an allusion to the great need of restrictive legislation concerning the public trade and use of pernicious things, be they alcohol, tobacco, indecent literature, fire-arms, or anything else known to be productive of injury to body or mind. The question of a protective tariff may admit of much controversy with facts worthy of serious thought on both sides, but the things mentioned above are undeniably destructive when used promiscuously, and a government that would protect its people from their effects should at least establish certain limitations to their use.

For growth in intellectual and moral power there must be an environment conducive to it. The mental inheritance must be supplemented by the training and surroundings favorable to its development, if a noble result is to be attained. This is a law of being that no philosopher will dispute, and its operation is most marked in the sphere of morals. It is the duty of the legislator to devise measures for the improvement of the environment of people, to suppress influences that corrupt and impoverish their moral natures, and thus to lead in the formation of an improved sentiment.

Finally, the civil establishment, which takes into account the mental diversities of the population in both the letter of its statutes and in the spirit of their execution, is that which will illustrate a form of human government of the highest order. Its effect will be a harmonious inter-relation of the several classes of men, a state of co-operation between employer and employed, a recognized condition of mutual dependence between rich and poor, and a general tendency of improvement in all.

SHALL WE RETURN TO ARCHAIC DIET?

THERE are in several parts of our country persons who have adopted what is called the "Edenic diet," or the use of uncooked food. They are strict vegetarians, as might be at once inferred, and by many of our intelligent readers they might be accounted a class of extremists, who do not realize how ridiculous they appear to "sensible" folks. If we can believe all these "Edenic" people say, we are forced to the conclusion that uncooked wheat, barley, oats, and corn, and the different fruits, nuts, roots, and other comestibles of the garden are best for some, if not *all*, types of organization. With our experience in the comparative use of vegetable and animal food in memory, we can understand how a colony of sympathetic people, settled in a soft, frugivorous climate like that of southern California, may succeed in making life not only tolerable, but pleasant, on a diet of raw cereals, fruits, nuts, and the variety of sapid vegetables that a California garden, well tilled, will yield. We may be inclined, however, to doubt the expediency of such an experiment in a less genial region, say like that of New York State, where one can not obtain supplies of fresh fruit and vegetables at all seasons, and can not depend absolutely upon the grocer for keeping his pantry stocked with the farinaceæ in as fresh a state as they should be. Yet, we know a few persons here in the city of New York who have given the system a trial in part, and are earnest in avowing their confidence in its merits as remedial to disease, and promotive of physical and mental vigor. A man who descends from a family of inveterate flesh-eaters

and has for a generation or more made beef, mutton, pork, etc., the chief constituents of his fare, can not be expected to change his manner of eating readily. He could not do it without suffering grievous constitutional disturbance, any more than the arsenic or opium-eater can stop his daily habit without soon afterward suffering the poisonous effects of the drug. Time, more or less, according to the constitutional assimilation, must be allowed for a gradual change from one form of diet to another radically different, and the procedure of change requires perseverance and patience which very few people—scarcely one in ten thousand, it may be said—who consider themselves robust and strong on a flesh diet, would exhibit. This is the reason that vegetarians, when questioned, are found, as a class, to have been invalids in earlier life, and were led to the adoption of the farinaceous diet in the hope of finding relief and cure. Why should the hearty, vigorous beef-eater make a change? He affirms with strong expression that he feels "well enough," and that when he's broken down by an over-stimulated system, has intimations of liver enlargement, kidney inflammation, heart irregularity, etc., it will be time enough to try "slop victuals." That's his view of the matter, with a suggestion of our own. But let the "Edenic" people plead their own cause, as it is set forth in a few extracts on another page.

THE WESTERN FLOODS—WITH A SUGGESTION.

MORE floods and greater devastation than ever in the valley of the Ohio and in the waters of the Upper

Mississippi. How terrible the sufferings of the thousands of men, women, and children made homeless by the cold invader! how doubly terrible in the mid-winter air! But these inundations are becoming common, yes, much too common; yet they must nevertheless awaken our pity for the unfortunates who are suddenly deprived of shelter and the common necessities of life. Hard-working, steady-going, quiet people they are on those river bottoms—people who help to make our country strong and prosperous through the labor of their hands; we should sympathize with them, and cheerfully accord them material aid.

And while we are organizing plans of relief, and sending money, food, and clothing to the destitute, half-drowned, half-frozen groups of people in Ohio, Indiana, and Kentucky, would it not be well for those in authority to look into the cause of these repeated calamities—whether it is to be found in the rampant and promiscuous destruction of the northern forests that has been going on during the past forty years, or must be attributed to meteorological conditions that are inexplicable? If there is no hope of averting these floods in the future, then let something be done quickly to reduce their disastrous results to life and property. Let our great engineers be invited to confer on the subject, for the purpose of devising a system of defences along the water-ways. There is an abundance of surplus cash in the United States Treasury, and rather than have it continue a subject of wrangling and covetous disputation for our congressional representatives term after term, let some part of it be devoted to embankments, dams, or what not that shall be a blessing to the millions who must live in the fertile

river bottoms, and a new source of prosperity to the nation.

A KIND (?) LIQUOR-SELLER.—A saloon-keeper in Miamisburg, O., is circulating his business-card, with the following on its back: "To all whom it may concern—Know ye that, by the payment of \$225, I am permitted to retail intoxicating liquors at my saloon in this city. To the wife who has a drunkard for a husband, or a friend who is unfortunately dissipated, I say emphatically, give me notice in person of such case or cases in which you are interested, and all such shall be excluded from my place. Let mothers, fathers, sisters, and brothers do likewise, and their requests will be kindly regarded. I pay a heavy tax for the privilege of selling liquors, and I want it distinctly understood that I have no desire to sell to drunkards or minors, or to the poor or destitute." It is strange that a man with so much benevolent discrimination in his nature should at all sell stuff that he knows works disease, sorrow, and death. Is he really in earnest, or cunningly trying to influence public sentiment in his favor, or, in other words, simply borrowing a patch or two of the livery of heaven to serve his master the devil in?

LIFE.

In its dawn, a bud whose perfume rare
Seems wafted from heavenly garden fair;
Beautiful promise of flower to be,
What radiant hopes are enshrined in thee.

Next in the garden of life, a rose
Whose blooming beauty new sweets disclose;
Love touched its petals, once snowy white,
And tinged the leaves with a roseate light.

Bud and blossom will wither away,
Fade the beauty that gladdens to-day;
But in other garden far from earth,
Lo! a beauteous flower finds heavenly birth.

Transplanted by angels, oh, ne'er, I ween,
So fair a blossom on earth was seen;
Safe from decay, from the blighting shower,
Behold the bud in immortal flower.

CALLIE L. BONNEY.

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE CONTRIBUTIONS unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal matters will be considered by the Editor if this is done.

VEGETATION AND ANIMAL LIFE PROPORTIONATE.—*Question*: We are led to believe that many years ago this entire earth was covered with a rank vegetation. Animals at that time, including man, must have been fewer in number than they are now. If they were in proportion then, they must certainly be out of proportion now, for since that time the vegetables have decreased and the animals increased. If the animal side is the greater, or is increasing, carbonic acid must be increasing also in quantity, which would make the air we breathe more impure. We have every reason to believe that several centuries back most animals, including man, were much larger and stronger than they are now. I can not help thinking that their present weakness partly comes by a disproportion in the animal and vegetable. I should be glad to have your opinion on this subject. F. L. T.

Answer: In ages past, in the early time when the earth was warmer and the atmosphere was filled with gases, carbonic acid especially being present, there was a wonderful growth of vegetation—a form of vegetation which scarcely exists to-day, except in some low types, the ferns for instance—and the prevalence of carbonic acid conduced to that

great growth. Nature sought then, as she does now, to maintain the balance. Later on there were animals whose growth and manner of life were adapted to the conditions of sea, and sky, and land, and they have disappeared in consequence of changes which the earth has undergone. Man himself has undergone changes from the time of his first appearance as an inhabitant of this planet. His condition is better for health, and growth, and power to-day than ever before; there is no disproportion to be found on the part of nature which works unkindly, so far as man is concerned. You say that the increased number of animals tends to the larger evolution of carbonic acid. I will point you to the immense areas of forest in the tropical parts of the earth to which the atmospheric currents are constantly carrying what excess of carbonic acid there may be in the thickly populated districts, whether produced by animal respiration, or thrown into the air from the million chimneys of factory and house. It is found by examination that even in cities the quantity of carbonic acid in the free atmosphere varies so slightly, from time to time, as to be scarcely worth consideration. This shows how speedily it is dissipated.

HEART AND THOUGHT.—C. J. L.—The old phases of expression with regard to the "heart" and "bowels" are figurative, and relate to the unlearned idea of the ancients that the heart and bowels had some originative connection with feeling and thought. Science of the past century or two has demonstrated, beyond cavil, the relation of the brain to intelligence, mind, emotion, and so on. It is the interrelation between mind and body which has produced the errors of opinion among the uneducated. Such, indeed, is the influence of a disturbed mind upon the action of the heart and the process of digestion, such the rapid impression through the nerves which transmit the impulses of the brain-centres, that it is not at all strange that those who are not well informed should be confused in their views. Intellect is cool, contemplative; emotion is active and violent, and it is the latter that produces the strange sensations in the physical organs which lead people to think that somehow or other the heart, and liver, and stomach, and intestines are a part of mind.

WHISTLING GIRL.—F. W. Y.—The girl evidently has a lively temperament, an exuberant nature, with perhaps not so well developed a sense of propriety as she should have. More Order, Ideality, Spirituality, and Agreeableness would be beneficial in her mental make-up. We do not object to girls whistling, provided they use their lips for the purpose, at proper times and in right places; but

one who is careless about how she whistles, and when, needs a little judicious counsel. A hearty, happy nature would express itself in singing, and if there be the ability to whistle, also in whistling. We think that among boys and men the good old practice of whistling is dying out.

VEGETABLE MEDICINES.—G. L. J.—It were much better to take some of the old-fashioned simple teas or decoctions, which our grandmothers prepared, than to swallow the mineral drugs of the schools. The "doctor" was not so much of an institution then as now. He was not so accessible, and people were more patient with their infirmities and ailments, and so much less disposed to dose. We think that you could find better methods of treatment for stomach or liver irregularity in the hygienic treatises.

A GOOD DICTIONARY.—*Question:* Will you give me the title of a good dictionary, one you can really recommend for general use. **SOUTH.**

Answer: There are several dictionaries that can be named, all of practical value. The latest that has come into favor, and which we find to serve our purpose excellently, is the Imperial Dictionary, a large work in four octavo volumes, published by the Century Company, of New York. The price is considerable—\$20 for the cloth edition—but when we consider the completeness of the work, its wealth of useful illustration and definition, the field of technical learning covered, the price is not high. It is a cyclopædia of verbal illustration which must be greatly valued by every educated man. A few weeks' use in our office has convinced us that the addition of the Imperial to our library is one of the most valuable that has been made for years.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

CALLINGS AND CHARACTERS.—

"The poet sings on the plain,
The trader toils in the mart,—
One envies the other's gain,
One stares at the other's art.
Yet each one reaches his goal,
And the critic sneers as they pass,
And each of the three in his soul
Believes the other an ass."—(BRET HARTE.)

"Our deeds determine us as much as we determine our deeds."—(GEORGE ELIOT.)

If a person fills his place, is equal to the task he is legitimately engaged in, there is no cause for censure on account of not being efficient in other callings, for thereto may be no call. It is a very great mistake to condemn others for not being in all points our own parallels. It is the greatest mis-

take to blame ourselves because we can not do just like another whom we respect. Judgment of character is to be formed not by mere comparison of people with a personal standard, but by all the circumstances of each individual case.

When we expect a work to come to us we should prepare to do it. When we have no special work in sight we act by present suggestion, and call it a preparation for whatever may come. We may not always choose what shall be our lot in life. We often fail of a good privilege by not having made ready for it when we had the opportunity. A hard lot is sometimes the best preparation for a good work.

"When God has a great work for any one to do in this world, He usually gives him a peculiar training for it; and that training is just what no earthly friend would choose for him; and sometimes it is so long continued that there seems to be but little time for the work."—(MARY LYON.)

The work when done may be of everlasting import.

Practical ability is ability to produce what is needed. To be in perfect balance is to stand still and effect nothing. Readiness to attempt everything is ability to spoil all. A sphere will not rest securely anywhere, and a man without preferences and personal inclinations can not be relied on for any purpose. Many things useful and pleasant must be foregone to become proficient in any one matter. He is good who is good for one thing; but it is not worth while to surrender all other claims in order to possess one thing in its utmost entirety. Bend to your work, but do not break your mental or moral integrity.

One person may not be educated to know, and trained to do, everything; but when one has the knowledge and skill he is capable of acquiring, or has occasion to use, his education is, for the time, practically complete. He is the educated man who knows what is to be done and how to do it. He is not an educated man, though replete with classic lore, who is impotent by ignorance of common affairs that come in his way. A dog's wisdom is better than a philosopher's learning to follow a rough road in the dark. A common sailor might live by his labor, when cast away on an island, where a Greek professor would perish. Training, tuition, instruction, if not education, separately compose it when taken together. Education is the formation of character. Whatever character you would form, use the corresponding tutelage to mould it. The ten commandments will not teach book-keeping, nor will geometry instruct in morality. No one can learn to be a machinist by turning a grindstone, nor become a genuine saint by attendance upon ceremonial observances. Do as well as you can any honest work which you find before you; understand as much as you may what is brought to your attention, and you need not lament your shortcomings, but believe yourself educated for whatever comes next.

JOHN H. P. GUILD.

PERSONAL.

MR. RUSKIN lately advised a young lady, who wrote him for directions about studying art, that it would be better to write less and cultivate a fine handwriting; "for no one who writes as you do could make a good artist," he said, and it took five people to decipher his characters.

LOUISE ARMALNDO is the only woman in the world who ever won a championship from men in any athletic game. She is a magnificently developed young lady, twenty-three years of age, and is a recognized long-distance champion in America, having defeated Morgan and Woodside for the championship in Chicago last year, making a record of 843 miles in seventy-two hours—twelve hours per day for six days, cycling.

ARNOLD HENRY GUYOT, Ph.D., LL.D., Blair Professor of Geology and Physical Geography in Princeton College, died in February, after a long illness, seventy-six years old. He was the senior professor. He was born near Neufchatel, Switzerland. He studied with Agassiz at Carlsruhe, and afterward when the revolution of 1848 broke up the University of Neufchatel, where he was lecturing, Agassiz induced him to come to this country. He was the author of "Earth and Man," a collection of lectures delivered in French, in Boston, and translated. He also prepared a series of maps and school geographies. While a young man in Switzerland he made a study of glaciers, and developed the theory that their movement takes place by means of the displacement of their molecules. This theory was afterward adopted by Agassiz and Tyn-dal. Prof. Guyot's latest work, entitled "Creation," in which he set out to show a harmony between the Mosaic cosmogony and the facts of science, is on the eve of publication.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

THE less a man thinks or knows about his virtues the better we like him.

A LIVING belief can rise only out of a believing human soul.—*Froude*.

NOT to enjoy one's youth, when one is young, is to imitate the miser who starves beside his treasures.—*Louise Colet*.

THERE is an old Gaelic saw which runs thus: "If the best man's faults were written on his forehead, it would make him pull his hat over his eyes."

TOIL is the law. Pleasure comes through toil, and not by self-indulgence and indolence. When one gets to love work, his life is a happy one.—*Ruskin*.

WHO thinks, in heavy hours replete with pain,
That peace and sweet delight can come again?
'Neath April's hanging clouds who remembers
Nature's luscious Junes and rich Septembers?

LIFE is made up not of great sacrifices and duties, but of little things, in which smiles and kindness, and small obligations, given habitually, are what win and preserve the heart, and secure comfort.—*Sir H. Davy*.

CONTRASTS.—"I am glad that I live," says one man. "I am sorry that I must die," says another. "I am glad," says one, "that it is no worse." "I am sorry," said another, "that it is no better."

SNEER not at old clothes. They are often made holy by long sacrifices, by careful foldings away, that they may last until the dear ones are provided for. If many an old coat could speak, what tales it would tell of the noble heart beating underneath!

MIRTH.

"A little nonsense now and then
Is relished by the wisest men."

DIAMONDS are a good deal like hens. Much depends upon their setting.

A LITTLE girl, after drinking a glass of water from a magnetic spring, said, "I do not feel one particle magnified, and I think these springs are a humbug." So do we.

DENTIST—"The man who wins that girl will get a treasure." Customer—"She looks like a charming creature. Is she wealthy?" "Wealthy! Well, I should say so. She has \$500 worth of gold in her teeth alone."

"HAVE you given electricity a trial for your complaint, Mrs. Fishwhacker?" asked the minister. "Electricity?" said she. "Well, yes, I reckon I has. I was struck by lightning last summer, and hove out of the window; but it didn't seem to do me no sort of good."

A CITIZEN went into a hardware store the other day and inquired, "How much do you ask for a bath-tub for a child?" "Three dollars and seventy-five cents," was the reply. "W-h-e-w!" whistled the customer. "Guess we'll have to go on washing the baby in the coal-scuttle till prices come down."

"WHAT a methodical fellow you are, Brown," said Filkins, who had stepped into Brown's office during the latter's absence. "Why, what do you mean?" asked Brown, who had just entered. "Mean," echoed Filkins, "to think you should lock all your drawers when you are only going out for five minutes. 'Tisn't likely that anybody would meddle with your papers." "Of course not," replied Brown; "but how did you find that the drawers were locked?"

"BREAD!" exclaimed a — College girl. "Bread! Well, I should say I can make bread. We studied that in our first year. You see, the yeast ferments, and the gas thus formed permeates everywhere, and transforms the plastic material into a clearly obvious atomic structure; and then—" "But what is this plastic material you speak of?" "Oh! That is commonly called the sponge." "But how do you make the sponge?" "Why, you don't make it; the cook always attends to that. Then we test the sponge with the thermometer and hydrometer and a lot of other instruments, the names of which I don't remember, and then hand it back to the cook, and I don't know what she does with it then, but when it comes on the table it is just splendid!"



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

OLD MARK LANGSTON. A Tale of Duke's Creek. By Richard Malcolm Johnston. 12mo, pp. 338. Price, \$1.25. Harper & Brothers, New York.

An old-fashioned love story, with so great a variety of situations and characters that its plot is decidedly complex, but Mr. Johnston deals with them boldly, and keeps the attention of his reader throughout. The situation of the story is in the same out-of-the-way town down South where the author has laid certain other scenes that have pleased us by their humorous delineation. The leading character is representative of many an old-fashioned man yet to be found in the South, whose quaint humors, honest moralizing, and emphatic utterances are cordially respected by all his neighbors. Associated in rendering the story spirited as well as purposeful are other "immigrants" from other parts, North and South, who are made to do their best in mixing up things, crossing the game of love, and almost destroying the hopes of the loving twain. In the end, however, constancy wins its reward, and the marriage bells ring joyously. There are numerous long talks, on all sorts of every-day topics, affecting the peace of Dukesborough; and these would be tedious enough were it not for the witty turns and facetious hits that always brighten them, and render one's interest unflagging.

JOSEPH HAYDN. The Story of his Life. Translated from the German of Franz Von Seeburg, by Rev. J. M. Tookey, S.P.R. Published by Joseph A. Lyons, A.M., Notre Dame, Ind. It is not often that a subject of biography meets

with so appreciative a pen as this celebrated musician, Haydn, did in Herr Von Seeburg. To be sure Haydn's life possesses an interest bordering on the romantic, but as a rule the writers of biography are not possessed of much romance in their natures, and they treat their subjects in rather direct fashions—giving, it may be, a full and accurate view of the men they discuss, as regards noteworthy data, but presenting them barely, throwing little of embellishment around them. A general reader prefers that which contains, in some degree at least, the character of entertainment, hence he reads mostly in the line of fiction or sketch.

The translation, which appears in this very tastefully and neatly printed form, was published first in the *Ave Maria*, a magazine which has some connection with the University of Notre Dame, Ind. The interest which it excited warranted its reproduction. It reads like a novel, but has the better merit of being a life history. It is high, refined, pure. If there be any bias or special phrasing intimated on the part of the Catholic translator, it is rarely met in the course of the volume, and to what there is we can make not the slightest exception.

The German writer of the life was fairly imbued with enthusiasm for his subject; and the translator, doubtless, unconsciously emulated the feeling of reverence. This is as it should be. The author of such a work as the oratorio of the "Creation" deserves immortality.

RECENT WONDERS IN ELECTRICITY, Electric Lighting, Magnetism, Telephony, etc. Including articles by Dr. Siemens, Count Du Monsel, and Prof. Thompson. Edited by Henry Greer, member of the New York Electrical Society, author of "Dictionary of Electricity," etc. Illustrated. Price, \$2.00.

This thick pamphlet is of value to those who are interested in the study of electricity. It shows one thing very emphatically to the reader,—that great progress is making in this department of modern science, and we can never tell what the end will be. That particularly interesting and valuable department of electrical methods, known as storage apparatus, receives, properly, the major part of consideration. Published by the New York agent, College of Electrical Engineering, New York.

THE MILLIONAIRE. A Novel. 12mo, pp. 267. Paper, 20 cents. Harper & Brothers, New York.

This is an uncommonly well written story of life in two climes—England and America. The writer, whose name is not given, is more familiar with London scenery than that of New York; but as scenery in a novel forms but a background of interest, we needn't dwell upon it, but turn to the characters—men and women. These are excellently managed, and admirably described. The chief figure is the millionaire, a New Yorker, who is drawn with that accuracy of detail which can only be attained by the study of a living original. Dexter File is the complete impersonation of a type of

man now met with in that financial circle where the highest stakes are played for. There is a strong vein of mystery woven into the plot, and into the characters too, that imparts to the book a special charm in addition to the skilful interplay of character. Altogether it strikes us as a novel of exceptional power, and not without points of instruction to the reader.

PROFIT AND LOSS. By Mary Dwinell Chellis, author of "The Brewery at Taylorville," etc. 16mo, pp. 358. Price, \$1.25. National Temp. Soc. and Pub. House, New York.

A story with a plot, which, stated briefly, is that in the selling of alcoholic beverages, as well as in the use of them, there is loss to the best interests of a man. His nature is impaired; his senses are deprived of the tender and pure elements of perception; he is corrupted in his views of the true and noble phases of individual conduct; he is warped and brutalized, and rendered subject to the lowest passions and vices. As a story it fully maintains the reputation of the author as a capital writer for the young.

ADDISON. By W. J. Courthope. 12mo, pp. 182. Cloth, 75 cents. Harper & Brothers, New York.

The list of compact biographies of English men of letters, edited by Mr. John Morley for the above publishers, has grown to very respectable dimensions—over thirty conspicuous names being now included—and we wonder that Joseph Addison had not been entered among the first half dozen. To be sure the people who read Addison to-day belong to a comparatively small class, but the same may be said of those who read Johnson, Gibbon, Hume, Sterne, Bentley, and even Macaulay. In some respects Addison excels all these. He was little of the poet, a failure as a writer of dramas, but as an essayist he possesses qualities above them all. In command of language for the clear expression of his ideas, for grace in its arrangement, and for infusing a pleasant, winning atmosphere, so to speak, through all that he has to say, Addison stands in advance of his contemporary essayists. He wrote in an age when English literature was in a transition state, when the mannerisms of society, vulgar and coarse in themselves, colored the work of the story-writer and the critic. He wrote for a purpose: to offset the rude, unclean, and unhealthful influences of prevailing custom by holding up a pure and rational standard of judgment in relation to morals, and to infuse a taste for reading and study in the circles of fashion. He portrays the life of convention with careful fidelity, but marks its follies and improprieties with a delicate satire that amuses while it condemns. He was a teacher who instructed well, although his pupils read his lessons as pastime. The life of Addison is reflected through his writings rather than by the scanty personal data that remain for the use of the biographer, for the essayist preferred to live out of the current of affairs

political and social, so that he could observe its movements and glean the material he deemed suitable for his criticism. Hence Mr. Courthope judiciously weaves into his interesting narrative many passages from the great writer's notes on travel, politics, social and personal matters, and from his more formal essays. This is well for the reader who comes to consider Joseph Addison for the first time. He gets a good look at him as a man and a writer, and from a memoir that is admirably prepared.

MEMOIRE AND RIME. By Joaquin Miller. Funk & Wagnalls, New York.

A pleasant mingling of sketches of travel, stories, and poems. In "Notes from an Old Journal" there are given bits of experience in New York City, in the Franco-Prussian war, at a tea-party given by the English poet, Rossetti, etc. The stories and sketches are of Western life, told in the best humor of the author. The "Rhymes for the Right" are in Mr. Miller's most fervent vein. "In Memoriam" gives some recollections of men and events which occupy a prominent place in history. The author writes of a life he knows thoroughly, and with the pen of genius.

HILL'S ALBUM OF PHOTOGRAPHY AND ART. Contains portraits and sketches of many persons who have been and are prominent as military heroes, inventors, financiers, scientists, explorers, writers, physicians, actors, lawyers, musicians, artists, poets, humorists, orators, statesmen; together with chapters relating to evolution, astronomy, household decoration, landscape gardening. By Thos. C. Hill, author of "Hill's Manual of Social and Business Forms." Published by the Hill Standard Book Co., Chicago.

A new edition of a cyclopedic work, with some additions and modifications. The title comprehensively indicates the nature of its contents. Considerable space is devoted to the discussion of Phrenological Science; a condensed summary of the subject being given in popular terms. One of the additions is a chapter on the "Science of Beautiful Dress," which supplies suggestions both humorous and grave. Mr. Hill has made all departments of life pay tribute to his work. There is much irregularity shown in the character of engravings, especially among the portraits; but in other respects the typography and binding must be commended as excellent.

EASTER FLOWERS. With Illustrations. Easter Lilies, Trailing Arbutus, and Azaleas. Arranged and illustrated by Susie B. Skelding. Price, \$1.50. White, Stokes & Allen, Publishers, New York.

Another of the very beautiful and appropriate collections of flowers and poems which these publishers have made it a specialty to produce, and which have only to be seen to be appreciated by those who love the beautiful. The floral designs in this collection are for the most part admirable in grouping and color, the richest design being on the

cover. Among the poets represented are Celia Thaxter, the Rev. John Keble, the Rev. Thomas Scott, Mrs. Hemans, and Mr. Bryant. As an Easter souvenir we have yet to see anything more appropriately beautiful.

RECORD OF FAMILY FACULTIES. Consisting of Tabular Forms and Directions for Entering Data, with an Explanatory Preface. **LIFE HISTORY ALBUM,** prepared by direction of the collective Investigation Committee of the British Medical Association.

Both of the above are edited by Francis Galton, F.R.S., author of *Hereditary Genius*, Chairman of the Life-History Sub-Committee, etc. As their titles suggest, these books are intended for use in families for the notation of anthropometric observations in a systematic manner, and for the preserving of data of a biological character. The record of the family faculties is particularly designed for those who care to forecast the mental and bodily faculties of their children, and further the science of heredity. The natural gifts of each individual being inherited from his ancestry, Mr. Galton believes it possible to foresee much of the latent capacities of the child in mind and body. In this respect he accords with phrenologists that a system of recording the characteristics of children will greatly promote advancement, because especially of its providing positive information for the rearing and education of children. Macmillan & Co., Publishers, London and New York. Price 90 cts. and \$1.25.

THE FAIREST OF THREE. A Tale of American Life. By Rev. Emory J. Haynes. Price, 50 cents. American News Co., New York.

This vigorous and graphic story deals with these ideas: First, the evils incident to the monopoly of great wealth in the hands of the few. Second, some evils which the possession of great wealth engenders in the life, virtue, and happiness of its possessors, including idleness of mind and body, and heartless arrogance. Third, the value of solid virtue, industry, and talent as factors in American life, with their beneficence toward the laborer,—who is a brother, not a slave,—in the great machinery of national thrift and personal prosperity.

REDFIELD'S COMPARATIVE PHYSIOGNOMY; or, Resemblances Between Man and Animals. By James W. Redfield, M.D. Illustrated with 330 engravings. 8vo, pp. 334. Price, \$2.50. New York: Fowler & Wells Co., Publishers.

A new edition of what may be deemed a standard work on the subject of physiognomy, carrying it into the field of similarity between man and animals, but no further than the author feels warranted in doing by the generally accepted doctrine of physical relation between man and the lower animals. The principles of evolution supply Mr. Redfield with a rational motive, while the very positive reflections of character or mental trait playing between the human and the animal creature must

be acknowledged by every candid observer. "Every observer will remember marking the resemblances between the face and expression of certain animals and human beings; and yet when the lines are drawn they are not so much alike as the first impression would seem to indicate; yet we never can look a certain dog, horse, cow, or sheep in the face without thinking of some person we know who resembles or reminds us of the animal in question." We meet men who have a decidedly foxy, or wolfish, or doggish appearance; we meet with women who have a decidedly feline type of expression, and we instinctively relate the mental characteristics of such persons to the animal which their features suggest. One may read this book out of mere curiosity, or may look at it from a humorous point of view—so be it; but whether one reads humorously or seriously he will find suggestions of value. It has a practical bearing in many respects—information by no means unworthy of reflection. For the artist especially there are many points of consideration; for the man of studious leaning there are valuable incidents scattered through the three hundred or more pages; while for the student of character there is much that is helpful. Indeed, now that so much attention is given by scientific observers to the mental characteristics of animals, this book is a seasonable contribution to the literature of the subject, and its style and wealth of illustration make it most appropriate for popular reading.

PUBLICATIONS RECEIVED.

COPP'S UNITED STATES SALARY LIST AND CIVIL SERVICE RULES, prepared by Henry N. Copp, a lawyer of Washington. All the Government salaries are given, from President Arthur's \$50,000 to postmasters with \$500, officials of the Treasury, Interior, War, and Navy Departments, custom-houses, post-offices, and fully 20,000 federal offices, arranged by States and Territories. Specimen examination questions for admittance to the Civil Service throughout the country are added. Price, 35 cents.

POPULAR SCIENCE MONTHLY, for March, contains a well-selected list of articles, most of which are of popular interest, especially "College Athletics"; "Remedies of Nature," as applicable to catarrh, pleurisy, croup, fashion, and deformity in feet; "Science vs. the Classics," and a sketch of the late astronomer and soldier O. M. Mitchell.

REPORT TO THE NEW YORK LEGISLATURE of the Commission to select and locate lands for the public parks in the Twenty-third and Twenty-fourth Wards of the City of New York, and in vicinity thereof, according to the provisions of the Act of the Legislature of the State of New York, passed April 19, 1883. A voluminous document, with a large number of full-paged plates, representing

views taken photographically from those regions, which are described in the text as eligible for park purposes.

SIXTY-FIFTH ANNUAL REPORT of the Trustees of the New York State Library for the year 1882, by which it appears that additions made number about 1,500 volumes; the total number reaching at this time 120,000; 85,000 are in the general library.

THE PRESS LEAFLETS, comprising small sketches or lectures on temperance topics. Prepared by well-known writers, especially adapted for young people, and costing but a trifle each. Published at 10 Federal Street, Boston.

THE ECLECTIC MAGAZINE of literature continues to offer for the American public its judicious selections from current literature. E. R. Pelton, Publisher, New York.

THE HOUSE THAT RUM BUILT, by Rev. Dwight Spencer, also assisted by the artist Spencer, is a graphic portrayal, in rhyme, of the havoc wrought by alcoholic drinking in the home. Price, 10 cents. Published by the Nat. Temp. Soc., New York.

PROHIBITION AND THE AMENDMENT. Address by Hon. Nelson Dingley, at Lake Maranocock, Me., which sets forth, in vigorous terms, the many reasons for the passage of a prohibitory amendment to the Constitution of the United States, prohibiting the manufacture and sale of intoxicating liquors as a beverage. Should be read by everybody. Price, 10 cts. J. N. Stearns, Publishing Ag't, New York.

THE KEY TO THE PROPHECIES concerning the Latter Days, which opens to a clear view many difficult passages in the Old and New Testaments. By James White, Ontario, Canada. The author in this pamphlet presents the results of much reading and thought on biblical subjects.

BULLION CERTIFICATES: the Safest and Best Money Possible. In this pamphlet Mr. I. W. Sylvester, of the United States Assay-office of New York, discusses the policy of the issue by the United States Treasury of "Certificates for and redeemable in the number of grains of standard bullion, contained in coins of the various denominations, considered as currency." He advocates that "gold in bars, of standard fineness, be made legal tender; and silver, in similar bars, be made legal tender, at its market value." The idea of the writer is of course to facilitate exchanges, and therefore the operations of business. We are inclined to approve his proposition, especially on account of its meeting a need of trade, and also because of its effect in offsetting the unnecessary coinage of gold and silver, especially that of the latter, which in late years has been carried to a farcical excess; besides, a very large and constant expenditure in the mint departments would be saved.

THE CENTURY, for March, is as rich as usual in artistic design, and especially interesting to the

American reader, containing as it does among its leading articles one on the public buildings and well-known neighborhoods of our nation's Capital, and another on old public buildings in America; Notes on the exile of Dante is also an attractive feature of the number, with effective views of famous Italian scenery.

THE NORTH AMERICAN REVIEW, for March, contains: Is our civilization perishable; A defenceless seaboard; A story of a nomination; Literary resurrectionists; How to improve the Mississippi, and other papers of a strong character.

HARPER'S NEW MONTHLY MAGAZINE for March deals with topics chiefly American, a finely illustrated sketch of St. Louis being the first to meet the reader's eye. An Eastern man, who has not travelled west of the Delaware River, may find his estimate of the growing character of the Mississippi valley much enlarged by contemplation of the well-defined views of prominent buildings and business neighborhoods. The sketch of Yorkshire offers some vivid scenery, and the article on "Early American Presidents" contains several well-known portraits; "Hints on Domestic Decoration" will have its attraction for our wives and daughters, while "The Poetry of the Deaf" presents some leaves from the real history of deaf-mute education which deserve a wide reading.

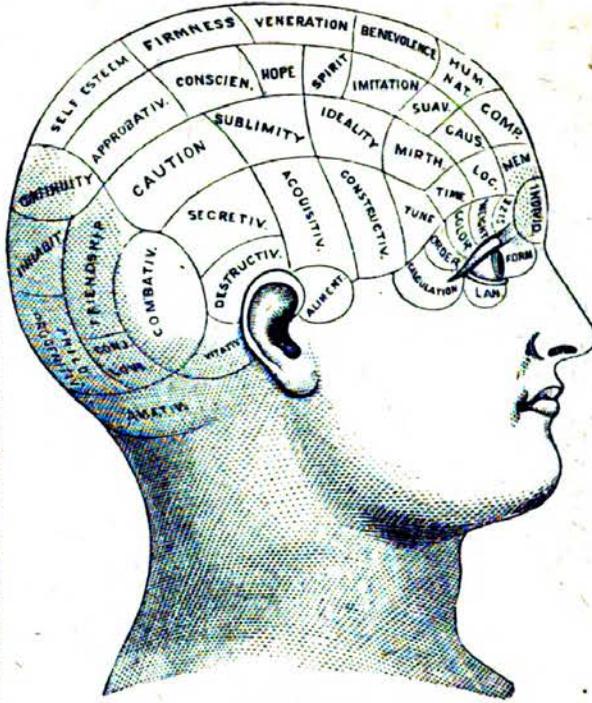
THE GREAT WANT OF THE DAY, by the Rev. Robert H. Craig, author of "The Advantages of Knowledge." Published by the author, London, Ontario. According to our author, the great want of the age is spiritual morality. The whole science of happiness is reducible to one word, obedience: that is, obedience to the law of God as written in His word. The Bible should be earnestly read, and in connection with its reading man should study his own nature, using all the instrumentalities of science that are at his command. Health contributes to happiness, and therefore we should study physiology and hygiene. A well-ordered and developed intellectual nature is essential, therefore phrenology should be learned. No one has any right to live a luxurious and self-indulgent life,—to live for himself and neglect others; but the spirit of sympathy and altruism should everywhere abound. Cicero has said, "No man can attain to excellence without a certain divine instruction"; and so, in order to attain a better moral and physical state we must look upward out of ourselves for support, animation, stimulus, encouragement to persist in doing what is right, ennobling, and purifying.

THE ILLUSTRATED CATHOLIC AMERICAN. This illustrated weekly is worthy of notice as being not only an excellent representative of the religious establishment to which it belongs, but also for containing much valuable information of a general character. There are few as well edited weekly papers issued by our Protestant denominations.

A Choice of Premiums.

THE DISEASES OF MODERN LIFE.

A work on the avoidable causes of Disease. By Benjamin W. Richardson, one of the most widely known of English physicians. 2mo, extra cloth, 500 pages. \$1.50. One of the most important Health books ever published. It treats most fully of prevention of disease, by pointing out in a simple and practical manner the avoidable causes. We have arranged for a large Edition of this work as a Premium, and a copy in large type bound in extra fine cloth is offered to each subscriber to THE PHRENOLOGICAL JOURNAL, or we will give the Bust Premium.



THE PHRENOLOGICAL BUST.

This bust is made of Plaster of Paris, and so lettered as to show the exact location of each of the Phrenological Organs. The head is nearly life-size, and very ornamental, deserving a place on the centre-table or mantel, in parlor, office, or study, and until recently has sold for \$2.00. This, with the illustrated key which accompanies each Bust, should be in the hands of all who would know "How to READ CHARACTER." It is now offered as a Premium to each yearly subscriber to THE PHRENOLOGICAL JOURNAL, or we will send the Book Premium.

THE

PHRENOLOGICAL JOURNAL

Is widely known in America and Europe, having been before the reading world nearly fifty years, and occupying a place in literature exclusively its own, viz., the study of HUMAN NATURE in all its phases, including Phrenology, Physiognomy, Ethnology, Physiology, etc., together with the "SCIENCE OF HEALTH," and no expense will be spared to make it the best publication for general circulation, tending always to make men better physically, mentally, and morally. Parents should read the JOURNAL, that they may better know how to govern and train their children. Young people should read the JOURNAL, that they may make the most of themselves. It has long met with the hearty approval of the press and the people.

N. Y. Tribune says: "Few works will better repay perusal in the family than this rich storehouse of instruction, which never fails to illustrate the practical philosophy of life, with its lively expositions, appropriate anecdotes, and agreeable sketches of distinguished individuals."

N. Y. Times says: "THE PHRENOLOGICAL JOURNAL proves that the increasing years of a periodical is no reason for its lessening its enterprise or for diminishing its abundance of interesting matter. If all magazines increased in merit as steadily as THE PHRENOLOGICAL JOURNAL, they would deserve in time to show equal evidences of popularity."

Christian Union says: "It is well known as a popular storehouse for useful thought. It teaches men to know themselves, and constantly presents matters of the highest interest to intelligent readers, and has the advantage of having always been not only 'up with the times,' but a little in advance. Its popularity shows the result of enterprise and brains."

Sunday-School Times says: "A great amount and variety of useful and instructive matter finds its way into this PHRENOLOGICAL monthly. It is progressive and liberal, in the good sense of those terms—a readable, valuable journal."

TERMS.

The JOURNAL is published monthly at \$2.00 a year, or 20 cents a Number. To each yearly subscriber is given either the BUST or BOOK Premium described above. When the Premiums are sent, 25 cents extra must be received with each subscription to pay postage on the JOURNAL and the expense of boxing and packing the Bust, which will be sent by express, or No. 2, a smaller size, or the Book Premium, will be sent by mail, post-paid.

Send amount in P. O. Orders, P. N., Drafts on New York, or in Registered Letters. Postage-stamps will be received. AGENTS WANTED. Send 10 cents for specimen Number, Premium List, Posters, etc. Address

FOWLER & WELLS CO., Publishers, 753 Broadway, New York.

Old Series, Vol. 78
May, 1884.

KNOW THYSELF

New Series, Vol. 29
NUMBER 5.



A First-class Monthly Magazine, devoted to the Study of Human Nature in all its Phases.

SUBSCRIPTION TERMS.
1 copy, 1 year. . . . \$2.00
1 copy, 6 months. . . \$1.00
1 copy, 1 month. . . . 20c.
10 copies, 1 year. . . \$15.00

CONTENTS.

I. John Rogers, the Popular Statuary.—Portrait,	235
II. Remarks on Classification,	239
III. The Constitution of Man,	242
IV. Arles and its Ancient Ruins.—Illustrated	252
V. Girl-Idleness,	255
VI. Capt. Mary M. Miller.—Portrait,	257
VII. The Mormons,	258
VIII. Because Men Want Them,	262
IX. The Soudan.—Map,	264
X. Shoes and Characters,	266
XI. Annuities,	267
XII. Eating—Its Laws and Errors,	269
XIII. How to See the Stomach.—Illustrated,	272
XIV. Travelling in Florida,	274

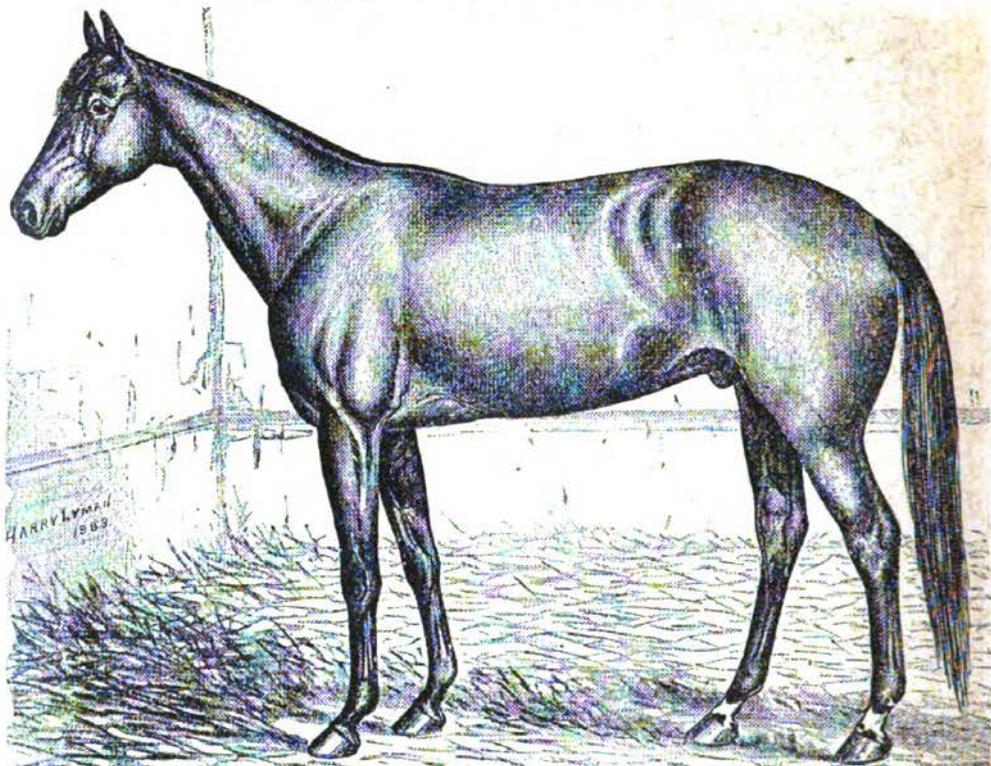
Notes in Science and Agriculture.— A Mistaken Philosophy of Growth; A Village Garden; Modern Engineering; Charlatan; The Function of Bacteria; Grease and Fat Butter; The Wonderful Northwest; A New Feature in Printing Art,	277
Poetry.—Nature's Expectancy of Better Things; It Is Well; Love never Lost; Blue Violets.	
Editorial Items.—A Proper Conservatism; The Cincinnati Emeute; A Phrenological Sight-Seer; The New "Company,"	280
Answers to Correspondents.—Phonography at Forty; Alcohol in Lactation; Careless Criticism; Contiguity of Eyes; Animal and Human Organs; Organ of Self-Esteem; Comparative Age of Wife; Heredity in Phrenology; Animal Magnetism; Phrenological Institute; Quality. WHAT THEY SAY.—Remarks on Classification; Chess and Patience; Opinions,	285
Personal — Wisdom — Mirth — Library.	

ENTERED AT THE POST-OFFICE AT NEW YORK AS SECOND-CLASS MATTER.

FOWLER & WELLS CO., Publishers, 753 Broadway, New York.

L. N. FOWLER, Imperial Buildings, London, England.

— JUST PUBLISHED. —



[JAY-EYE-SEE.]

HORSES:

Their Feed and Their Feet.

A Manual of Horse Hygiene invaluable for the veteran or the novice. By C. E. Page, M.D.; with a treatise and notes on shoeing by Sir George Cox and Col. M. C. Weld. Nearly 200 pp. 12mo. Illustrated. Paper, 50 cts.; extra cloth, 75 cents.

This book gives in a condensed form much that is valuable on the care of horses, that has not before been published. The subject is considered from a new and original stand-point, and stated in a plain, practical, common-sense manner, showing how by proper care we may add many valuable years of life and usefulness to our horses. Unlike many books on this subject, it does not advertise any medicines.

To a new edition has been added, as plates, a number of full-page portraits of famous and thoroughbred horses, including "Jay-Eye-See," "Joe Bunker," "Parole," "Alcantara," "Miss Woodford," "Estes," "Eole," "Buckeye Bayard," "Buckingham," and others.

PARTIAL CONTENTS.

Foul Air and Disease in Stable; Blanketing a Steaming Horse; How to Transform a "seedy" Horse; "Condition" in Horses; Why they go Lamé Suddenly; Flesh vs. Fat; A Soft Horse; Hint to Would-be Race-winners; Two-meal System; Extra Feed; Dyspepsia or Indigestion. Symptoms and Cause; Cause and Cure of "Pulling"; "Colds"; What this Disorder really is, and How Caused; Prevention of the "Distemper," Its Cure; Hand-Rubbing vs. Drugs; Danger of Medication; Use of the Blanket; Clipping; Eating and Digesting—the Difference; Kind of Treatment; Over-driving; Over-work; A Safe Remedy; Chest Founder; Chronic Disease, Cause; Hints relating to Food and Drink; Sore Back; Scrofula; Glanders; Kidney Complaints; Relation of "Condition" to Reserved Force or Staying Power;

Quantity of Food; The Best Feed; Flatulence; Cribbing; "Grassing Out"; About the Appetite; Feeding of Road Horses; First-class Stables; "Mash"; Veterinary Practice; Founder; Eating the Bedding; Rules that may be Tried.

SHOEING.—Value of Horse Property; Normal Age of the Horse; Chief Source of the Horse's Suffering; One Cause and Cure of Swelled Legs; Effect of Shoe Nails; Running Barefoot over Rocky Hills; Direct and Indirect Benefit Everybody but the Blacksmith Benefited; Independence of the Unshod Horse; French, English and Mexican Army Experiences; Col. Weld's Experience; The Experience of Others; Speeding without Shoes; The Training and Signs of Character of Horses.

It is safe to say, that to every owner of a horse this book would prove most valuable. The price is only 50 cents in paper covers, or handsomely bound in extra cloth, 75 cents. By mail, post-paid. **Agents Wanted** to sell this to every owner of a horse. Specially liberal terms given. Address

FOWLER & WELLS CO., Publishers, 753 Broadway, New York.

THE
PHRENOLOGICAL JOURNAL
AND
VOL. 78. **LIFE ILLUSTRATED.** 1884.

NUMBER 5]

May, 1884.

[WHOLE No. 545.



JOHN ROGERS,

THE POPULAR STATUARY.

IN Mr. Rogers we have an artist whose type of genius is essentially American. He has devoted himself, not to the illustration of the ideal in form and expression, a sphere of art that counts its

workers by the hundred or thousand, but to the illustration of peculiar or characteristic phases of American life. In this he has been the pioneer, and almost stands alone to-day, having won reputa-

tion for his skill in seizing upon ideas of a specially interesting nature, and working them out with singular fidelity. Others may exhibit superior ability in copying the forms of classical art, but few, very few, among the multitude who work in clay show originality in design and skill in rendering their ideas clear and impressive. A reference to certain groups that were the product of his earlier effort, and have enjoyed popular favor for fifteen years or more, such as "The Country Post-office," "Wounded Scout," "Checker Players," and "Village Schoolmaster," show the peculiar facility of this artist in transferring to clay the spirit of an incident or of a popular sentiment.

Mr. Rogers can not point to an artist pedigree, and claim that his special leaning to sculpture was a transmitted quality *per se*, but he can claim that his New England parentage imparted traits of energy and industry that have been fundamental to his success. In person he is tall and slender, yet of well-knit frame, compact muscle, and dense nervous fibre. His temperament conduces to mental and physical activity, and by organization he is spirited, ambitious, eager to accomplish, and thorough-going. The head, as shown in the engraving, is broad, especially in the upper temporal region, and in the region of Caution, indicating a natural disposition to industry, talent for mechanical construction, taste, with prudence, care, and guardedness. He was always a worker; one disposed to work out his ideas or express his thoughts through some original accomplishment. He is not largely endowed with Self-esteem, hence not a heady man or inclined to assume responsibilities, or to assert his opinion strongly. He is disinclined to disputes or controversies, yet not wanting in the

element of Combativeness, which promotes energy of action or defence when his personal interests are assailed. He has a rather strong social development, the disposition to hold to those whom he considers friends; but he is not a demonstrative man socially; large Caution and moderate Self-esteem keep him in reserve. He does not make advances; may appear to be cool and backward at first in his relations with others; but after the shell of reserve has been broken, and he feels assured that his sentiment will be fully returned, he is a close and constant friend. In all his past relations with the world, wherever responsibility was to be assumed, he has been found, we think, an exceedingly retiring and circumspect man, not adventurous or prompt to take risks.

Intellectually, he has a good degree of the reasoning organs that make him much of the thinker; he appreciates wit; is quick in forming opinions, especially of people. He is well endowed in Constructiveness, or the mechanical sense; while taste for art is also shown by the breadth of his head in the region of Ideality. The moral sense is not wanting, particularly in the elements of benevolence and spirituality; and he is also not wanting in clear discernment of his interests and in ability to conduct business affairs. He is known for economy in the use of time, effort, and money, and can, as a rule, administer these factors with excellent practical effect. We think that he was peculiarly fortunate in the adoption of his pursuit, since it is one that accords well with his organization, furnishing a quiet sphere with enough of variety, and employing his tastes and his faculties of invention and construction. A sphere where he can think and work

without encountering rude opposition, or awakening the hostile side of public sentiment; where he can, as it were, contemplate society apart from it, and make use of his inferences, is the place for him, and he has, for the most part, created the place which he fills so well.

JOHN ROGERS was born at Salem, Mass., on the 30th of October, 1829, and after receiving a good common school education took a place as a clerk in a Boston store. He remained in that connection but two years, finding the measurement of cloth and cotton quite uncongenial to his tastes and leanings.

In early boyhood a strong fondness for drawing and painting had shown itself, and although he found no sympathy for its exercise at home, he was not to be more than temporarily diverted from cherishing it. An opportunity was offered him to join the engineers then at work on the Cochituate water-works, and at once embraced it. Here his aptitude for draughting was exercised, with the most encouraging success. But his enthusiasm was too earnest for his physical endurance; his eyes became impaired, and to avoid their serious injury he gave up sedentary employments, and made a voyage to Spain and back for the benefit of his health. Soon after his return, in 1848, we find him at the bench of a machine-shop in Manchester, N. H., learning the trade of a machinist. For seven years he labored in the different departments of the shop; but in the meantime his old artistic yearnings were not repressed. Although at the bench fourteen hours a day, he found time to practice modelling in clay—a direction which had been given his æsthetic talent by accidentally seeing, while in Boston, a young man engaged in shaping some plaster into ornamental designs. As he

became more and more skilful in modelling, his duties in the machine-shop became more irksome; but as his friends were not willing to assist him in his hopes, he was compelled to keep at the machinery.

In 1856 he took charge of a railroad shop at Hannibal, Mo. The financial crisis that came in 1857 threw him out of employment there, and having now some means at command, he determined to visit Paris and Rome, and reap what advantage he could in the study of classic art. Accordingly, he spent eight months



in France and Italy, but without the success he had hoped for. The works of the old masters awakened but little enthusiasm. As we have already said, his taste and genius were of an original type, and not sufficiently in accord with classicism to find hearty encouragement therein.

Mr. Rogers returned from his artistic survey in Europe with feelings somewhat depressed. He found employment in the office of the City Surveyor of Chicago, and in a short time won the favor of his principal by his skill and industry. A few months after his establishment in Chicago

he made a venture in the artistic line by placing at the disposal of a fair, gotten up in the interest of some charitable object, a group of "Checker Players," which he had carefully modelled. This work hit the public fancy, and was highly applauded by newspaper critics for its faithfulness to nature.

The work which brought him into successful notoriety, and encouraged him to think that he could depend on art for support, as well as reputation, is the "Slave Auction," which he modelled in Chicago, and afterward brought to New York for exhibition in 1859. He then



took an office, or studio, in New York, and zealously went to work. Orders came in freely for his designs, so that he found it necessary to reproduce his groups by the best mechanical aids he could find or invent.

To the "Checker Players" and "Slave Auction" he added the "Village Schoolmaster," the "Town Pump," the "Picket Guard," "Camp Fire," "Sharpshooters," "Union Refugees," and "Country Post-office." The effective manner in which Mr. Rogers delineated character in these groups—a veritable rendering into sculpture of the detail of the canvas—commanded attention wherever they were shown, and the low price at which the

groups were supplied made a market for them promptly.

The incidents of the civil war supplied Mr. Rogers with a rich field of suggestion, and his subjects taken from it are admirable examples of truthful expression. The "Home Guard," "Bushwhacker," "Returned Volunteer," "Taking the Oath, and Drawing Rations," "Mail Day," "Wounded Scout," "One More Shot," must long remain in favor; the "Wounded Scout," "Taking the Oath, and Drawing Rations" being, perhaps, of those enumerated, the most highly esteemed, for their silent eloquence and merit as works of art.

Among Mr. Rogers' designs of a humorous character are "Uncle Ned's School," the "Courtship in Sleepy Hollow," the "School Examination," "Pedlar at the Fair," "The Tap on the Window," "The Mock Trial," and "Neighboring Pews."

The "Courtship in Sleepy Hollow" is full of the humor of Irving's sketch. Ichabod Crane is in the midst of a killing avowal of his passion, and offering a bouquet to the charmer of his heart. Katrina receives his addresses with a mischievous smile, one hand stroking her pet cat, the other taking the flowers.

Of "Neighboring Pews," the illustration well relates the story. All Mr. Rogers' later works show growth in both the rendering of the ideas they represent and in artistic finish. He has tried his hand even with Shakespeare, and we think very successfully, in the group, from "Othello," entitled "Ha, I like not that," the insinuating whisper of Iago, on seeing Cassio and Desdemona together in the garden; and that from the trial scene of the "Merchant of Venice," where Shylock asks, "Is it so nominated in the bond?"

The artist well deserves the success which is his. He has won it by persistent industry, and not through mere luck. The aptitude for modelling was a gift of nature, to be sure, but it was made of use only by persevering study and practice.

REMARKS ON CLASSIFICATION.

THE almost universally accepted classification of the organs of the brain, as they are discussed in late treatises on Phrenology, seem to me to be defective in several respects, and I have ventured, in a former number of this magazine, to indicate my views.

First.—The organs of Amativeness, Conjugality, and Philoprogenitiveness; Adhesiveness, Inhabitiveness, and Continuity, are all placed in one group, called "Domestic propensities." To the critic of mind there is a marked difference between the essential nature of the first three organs and the last three named. Amativeness, Philoprogenitiveness, and Conjugality are purely physico-organic faculties—organs of reproduction, while Adhesiveness and Inhabitiveness are purely social faculties. One class relates to private interest alone, while the other relates to a general or public interest, and, therefore, they should form two distinct groups, viz.: Organic or Domestic and Social.

Concentrativeness seems to be a faculty distinct from all the others; a kind of regulator or modifier of the others. Therefore it can not, with anything like consistency, be placed in any specified class of faculties.

Second.—Combativeness, Vitativeness, Destructiveness, Secretiveness, Acquisitiveness, and Alimentiveness are called selfish propensities. Strictly speaking, not one of these organs is necessarily selfish by nature. They provide for the various animal wants, it is true, but they are used in just the same way whether providing for one's own desires or in providing for the wants of others. When Adhesiveness is large, Combativeness is employed in defending the rights of friends, and there is nothing selfish in defending our friends. When Philoprogenitiveness is large, Combativeness is used in defending children. There is nothing selfish in defending children. When Inhabitiveness is large, Combativeness may be used in defending home and

country, and there is, surely, nothing selfish in patriotism. It certainly was not selfish desires that prompted Washington to take up arms in defence of his country, his home, and his people, to free them from the exactions of a foreign Government. It certainly was not selfish desires that filled the hearts of his followers with animation; that caused them to rush into the thickest of the battle; to face the terrible cannon, while fathers and brothers were falling thickly around them. Ah, it was that noble patriotism, the love of their home and their country, their fathers and mothers, their sisters and brothers, their wives and their children. Nobler deeds were never done; yet had it not been for Combativeness they would never have been achieved.

Combativeness is used in defending the laws of God, in administering justice and punishing the wicked. Combativeness is as a stimulant to the other organ; thus it is plainly seen that Combativeness is not a selfish organ, but, on the contrary, it is a support not only for the physical organs, but also for the intellectual and moral faculties.

All the organs of the group called "Selfish propensities" may be taken up separately and the same result reached. But take Self-esteem and Approbativeness, analyze them and note the result. The so-called "Selfish propensities" are the sustaining part of man's nature physically, intellectually, and morally; therefore we would suggest that the "Sustaining group" would be a more appropriate name for them collectively.

Third.—Self-esteem, Approbativeness, and Cautiousness are all placed in one group, and called "Selfish sentiments." To me it seems a piece of inconsistency to place Cautiousness in a selfish group, for Cautiousness is not a selfish organ. A selfish organ relates to one's self, and one's self only. A person can fear not only for himself, but for others.

Prof. Fowler, in speaking of Cautiousness, says: "One having Cautiousness

full, large, or very large, and Philoprogenitiveness large or very large, and Acquisitiveness small, will experience but little solicitude concerning his property, but feel the greatest anxiety concerning his children."

Self-esteem and Approbativeness are exactly the opposite in nature; they relate to one's self, and one's self only. These are purely selfish faculties, and, strictly speaking, I consider them the only selfish organs in the brain. Cautiousness is largely a perfective organ: it makes man watchful and prudent; "looks at every plan and project with a careful, anxious eye before he concludes upon the course to pursue. Watch as well as pray is the language of Cautiousness."

Prof. Drayton, speaking of Sublimity as a "probable" organ, says: "It is the province of Ideality to give taste, a love of the beautiful and the exquisite. Cautiousness inspires the sentiment of fear, and it could scarcely be deemed improbable that between these two an organ exists whose function partakes of the nature of each,—the sentiment of the beautiful imbued with the sentiment of fear, which are appreciation of the grand, the awful, and the sublime."* Thus he virtually makes Sublimity the connecting link between Ideality and Cautiousness, which is in perfect harmony with the new classification.

Fourth.—The group called "Moral Sentiments" contains two sets of organs—the moral or religious, and the sympathetic faculties. The first contains the organs of Veneration, Firmness, Conscientiousness, Hope, and Spirituality. The second contains Benevolence, Imitation, Agreeableness, and Human Nature. Benevolence is the controlling organ of this group; it being situated at the top of the head in the centre of this group, it governs, as it were, all the organs of the group. Human Nature aids Benevolence in bestowing charity and sympathy upon those who need. Of what other use can Human Nature be but to judge the char-

acter of our fellow-men, that we may act with them accordingly? From Agreeableness arises a desire to make one's self agreeable to others. And who is it with large Imitation that by imitating the witty and ridiculous brings smiles to the face of the gloomy, drives away sorrow and despair, and inspires bright hopes in the hearts of those to whom a smile is a stranger.

As I have remarked before, man is a threefold being—a trinity—blending the physical, intellectual, and moral in one grand harmony. It is the blending of these three grand elements of Nature that so admirably adapts him to the physical, intellectual, and moral part of his being.

The accepted classification will not logically admit this threefold division; we can not take the groups as they are marked on the phrenological bust and set off three grand divisions. Part of the semi-intellectual group marches down into the physical organs, and part of the group called "Domestic propensities" reaches upward into the intellectual organs. Man is not a threefold being unless the organs of his head will permit a threefold division, for the head is the governor of his body, his feelings, and his nature. Unless the groups will permit a threefold division, and that, too, in a symmetrical manner, it must certainly be erroneous. It does not harmonize with the nature of man. The works of nature form one grand harmony.

"All are but the parts of one stupendous whole,
Whose body Nature is, and God the soul."

Why do most phrenologists of to-day accept, or regard with indifference, a classification which they must acknowledge to be erroneous in many respects? "The harp holds in its strings the possibilities of the noblest chords; yet if it be not struck, they hang tuneless and useless. So the mind, with its forty faculties, must be smitten by a bold hand to prove the offspring of divinity." The world itself is no longer clay, but rather iron, in the hands of its workers. Men can no longer fly at one dash into eminent position.

* "Brain and Mind," p. 196.

They must hammer it out by steady and rugged blows.

In this age of critics, a thing of so vast importance to the science of Phrenology as a correct classification of the organs of

the brain should be worked upon by all true phrenologists. Serve truth wherever we find it; frown upon errors, and lend a helping hand to the onward tread of progress, should be our motto.

J. A. H.

NATURE'S EXPECTANCY OF BETTER THINGS.

THE following lines are in the opening of Book IX. of a poem in preparation for the press by the Rev. John Waugh. The general subject is "Messiah's Mission":

The whole creation is in travail pains,
And hath been through the moaning centuries,
That the New Earth, through birth-throes hopefully
May yet attain the birthrights of the free,
And hold its way, 'mid the unfallen spheres.
The ocean-surges groan upon the beach;
The tempests rave in elemental war
Through equipoise disturbed in all their realms.
The mountain torrents and the fretting streams
Speak of unrest unto the heaving plains,
Responsive to the qualms of inward woe.
The rock-ribbed headlands weep in solitude
Through Sundered strata thrown in direful wrath
From angry waters and internal fires.
The lines of suffering seam the lofty heights
And widen frightfully in caverned depths
Reposing on the breasts of Nature's grief.
Death meets us in the deepest caves and mines,
In deep-sea soundings and the highland's range;
The forests groan in fierce cyclonic wrath,
And fall complaining to the murmuring ground;
Or smitten by the axe in nodding prime
Fall with a wail unto the answering hills.
Amid the shrieking winds and weeping skies
And hectic flush of Autumn's smitten face,
The year lies down in Winter's chilly grave
Beneath her mantle of pale-liveried death.
The lightning's flash is Nature's angry gleam,
The thunder's crash the outcry of her pains,
Volcanic fires with lava-pouring floods
The fierce protest of her disturbed repose;
And blackened skies and thick descending rains
Her mourning weeds and overwhelming tears.

Nature and man have been in fellowship:
One in their fall, and one in faith to rise.
She rises with Humanity, and waits
The full disclosure of the sons of God,—
The sons of Adam, rectified and brought
Back to the heritage from whence they fell,—
Humanity has lain a giant crushed,
Writhing, repining, struggling to be free.
Revolts and wars have been its utterances
Of mad protests and execrations fierce;
Civil commotions and the intestine whirl

Of Revolutions, its unreasoning wails,
The vices were its sores; its armies, whips;
Its taxes, blisters; flowing blood, its tears;
Its government, oppression; its religion, crime;
Its nightmare, tyranny; its history, sin;
And its great moral, Sin is misery.
Yet in its falls, its lapses, and complaints
Still uttering as with voice oracular,
Its undertone the whispering of God,—
"Rejoice not over me, my mocking foe,
Fallen, and lost, yet I shall rise again!"

For all this groaning is for better things,
The stretching forth of Nature's neck, to see
Tokens of rescue from the lengthened night
Through myriad ages black and unrelieved.
Yet she has seen them gleaming from above,
Though disappointed, ever looking up
Above the terrene forms that would not sleep,
Creation fallen, still attempts to rise;
The grass cut down, asserts its right to live;
The Pseud-acacia, levelled to the soil,
Sends forth its shoots to be a tree again.
The grain, cast out to die in furrowed graves,
E'en in its dying germinates new life.
The flower in shaded nooks, rejects the gloom,
And bends, as if in prayer, toward the sun.
The tender plant, unpitifully pressed down,
Sends out its feelers to the river's flow,
Or rends the bonds of heavy earth and stone,
Shaking in laughter in the summer's breath.
The mangled flesh finds mediating power
To bring its severed members firmly knit
With clasping hands in unity restored.

The whirling earth speeds forth upon its way
In its aerial journey round the sun,
Freighted with beauty, wealth, magnificence,
And grander possibilities than e'er
Conjecture led in search of realms unknown.
The eye beholds them not, they lie concealed
Waiting the wizard touch of Time, to burst
From their occult retreats to change the globe
Into new forms of unexpected life,—
Gardens of beauty, which no summer's dream
In fair procession passed before the mind;
Palatial structures, stored with finest art
Of garments, gems, and richest furniture,—
Mechanic arts, beyond the Orient
Or wiser Occidental skill to reach,—

Ships, such as never cut the rolling seas ;
 Rail-cars, beyond the dream of Stephenson,
 Propelled by subtle forces now at rest ; •
 Rapid conveyance over sea and land
 Smiling at dangers from the elements ;
 The Torrid heat, or Arctic cold, exchanged
 Or modified at will to human needs ;
 Fruits, flowers, and sylvan groves outspread,
 With fountains raining gems on emerald paths ;
 Roads, firm and smooth, and shaded from the sun,
 Whose vistas open into Paradise.
 There's many an Eden sleeping in the plains ;
 There's El Dorado, not in Spanish dreams,
 But in the drama of inrolling years ;
 Atlantis has not sunk to rise no more,
 But waits its sure evulsion from the deep ;
 The Golden Age lies not in Terra's past,
 In Ovid's verse, or old Hesiod's page,
 But in the future ready to be born,
 Not under Saturn's rule, but Jesus' reign.
 De Leon's Font of Life, long vainly sought

In wild Floridian glades, is not a myth,
 But lies in store against the time to come,
 At fair Hygeia's touch as God ordains,
 Forth from the Rock of Ages, flowing free.
 Vast mineral wealth untouched by human skill
 Waits to be opened at the world's demand.
 The gold of Ophir—Ophir's wide apart—
 Havilah's gold, pronounced by God as good ;
 Bdelium, and onyx stones instead of brass,
 And brass, in place of stones wide multiplied,
 Await the civic builders of the world.
 Rivers of oil fall slow and trickling down
 Through Earth's carbonic ribs unseen below,
 Weeping, as if to reach the surface free
 And burst in floods of light on human eyes ;
 Commingled waters in the unknown depths
 Long to come forth, and turn the arid plains
 To blooming Sharon's 'neath the smiling skies ;
 A new Creation lies within the Old
 As waits the soul the body's final throes
 To roam at freedom in the life to come.

THE CONSTITUTION OF MAN.

"I will praise Thee, for I am fearfully and wonderfully made."—PSALM cxxxix. 14.

THESE words were uttered by the Psalmist, in the midst of profound meditations upon his own helpless condition, as contrasted with the infinite power of God. David, throughout the whole psalm, with that keen and intense perception which springs from a highly emotional and imaginative nature, grasps truth with a vigor of comprehension far beyond the reach of the purely abstract thinker. Breaking away from the environments of commonplace intelligence, his poetic nature soars even to the throne of God, and piercing the thick clouds which veil in incomprehensible mystery the attributes of deity from the ordinary mind, he presents the Creator of the universe, in the majesty of His being, with a vividness and reality so intense and accurate that we almost shudder to find ourselves in the very presence of the Eternal One. God to him is no mere abstraction. He is the omnipresent One. There is no escape from Him. In his own language, "Whither shall I go from Thy Spirit, whither shall I go from Thy presence? If I climb up into heaven, Thou art there. If I go down to

hell, Thou art there also. If I take the wings of the morning, and remain in the uttermost parts of the sea, even there shall Thy hand lead me." And as David contemplates the constitution of God, as that Being stands out before him, not in the dim haze of metaphysical abstraction, but in the noonday light of poetic intuition, so real, so truly self-existent, so omnipotent, so far-seeing, that the merest speck in the vast universe is not hidden from His penetrating eye ; he is dazzled, he is bewildered, by his own lofty conceptions of the infinite one, and can not help turning his meditations inwardly upon himself and contrasting his own poor human nature with the divine nature. He finds that he is a compound of good and evil elements. He is startled by the warfare which rages within his bosom. Thought seems to strive with thought, and purpose with purpose. He finds that he is indeed a marvel of workmanship, but how imperfect, compared with the nature of his God, the embodiment of all perfections! He trembles at his own weakness, but he can not restrain the emotions which rise in his soul, and he gives vent to the sublime exclamation: "I will praise Thee, O Lord, for I am

fearfully and wonderfully made." But the Psalmist does not here utter a truth which he alone of all men has felt. It is the exclamation of all those who have studied the human constitution. The cry has gone up to heaven from many a despairing wretch when caught in the toils of his own passions, "I am fearfully and wonderfully made."

Man stands before us to-day in a light which sheds more knowledge of his constitution than ever before, and yet no philosopher of the recognized schools of philosophy has given us a satisfactory classification of the innate powers of his constitution.

We argue, we debate, we prove this truth and that doctrine by an appeal to man's constitution, and yet just what is meant by man's constitution is exceedingly vague. We say we can not believe in such and such a doctrine because the testimony of the human consciousness, in all ages, is against it. There must be some vital truth in this appeal to man's consciousness, but just what that truth is we more often take for granted than explain, and yet nothing stands more in need of explanation.

A true knowledge of man's constitution is of so much importance, standing at the very threshold of true and successful preaching, that a preacher ought to endeavor to understand it before he begins to instruct men. The reason why half the sermons fall flat is because preachers are too often ignorant of the nature of the men they address, and so they pour forth at random a torrent of stilted artificiality, and if they hit any one it is purely accidental, an unintentional Irish bull. When an artist wishes to produce a good picture he studies the scene before him in all its minute parts. Every blade of grass, and every dew-drop on the blade, every tree and every variety of tint in flower or leaf, every checkered ray spanning the heavens, every ripple of the wavelets, every loving smile on the beautiful expanse of water before him are carefully noted, and each one has its place in the picture, and the

result is that the on-looker exclaims, "How beautiful! how true to nature!" So the preacher ought to study the human constitution. No successful preaching can be accomplished without such a knowledge. If a preacher understands the constitution of men he will preach to men and not at them. He will preach the constitution and not on it.

What, then, is the human constitution? A brief definition must suffice. The human constitution is all those qualities which make up man. It is the sum of all his faculties, mental, physical, moral, and spiritual. Deprived of any one of these faculties man would cease to be man. Concerning what these faculties are, how many in number, and whence their origin, philosophers have only thrown out a few hints. The novelist and poet have analyzed man's constitution more fully and accurately than the metaphysician, hence their wonderful success in gaining the attention of men.

We find that in the constitution of man there are many apparently opposite elements. If there is love, there is also hate. If there is self-sacrifice, there is also extreme selfishness. Paradoxical as it may seem, the same lips that pray may curse and blaspheme. The same heart that beats in unison with God's will, may at other times throb against His will. Nestling away down in the very sanctuary of man's organism, side by side with the angelic emotions of love, beauty, tenderness, sympathy, purity, holiness, filial affection, faith, hope, and constancy are the foul and loathsome propensities of destruction, envy, hate, malice, selfishness, adultery, disobedience, murder, and rapine,* ready to spring up at any moment and engage in mortal combat with each other. Every child born into the world has certain elementary tendencies which will more or less shape his character. To a judge of human nature it is even possible to tell what those characteristics are. The child is father of the man beyond a

* These are not scientific but popular terms.—
F. A. H.

doubt, but at the same time circumstances and education will influence the development of the character, though innate powers will control the direction.

If this is true, it is incumbent upon every parent to ascertain, as early as possible, the bent of the child's genetic faculties, if they would make a man of the right calibre out of him. It must have become evident to every one, even though he may be but an indifferent observer of human nature, that men differ in talents and dispositions. This fact, though at first seemingly an obstacle in the way of ascertaining the innate powers of the typical man, is just what enables us to discover the elements of character in their singleness, and to separate and assign to each its peculiar effect in combination.

Without entering into detail, or carrying out this process of character-sifting, I will simply state that history, observation, and psychology show that there are three or more well-defined groups of genetic powers in man's constitution. First, there are innate tendencies in man which we call animal propensities, because we find similar tendencies in the constitution of animals. These propensities, in their elementary state, are not sinful; they become sinful only in proportion as they violate the demands of a higher class of faculties, which we shall mention hereafter. Their chief function, however, is selfish. They prompt men to self-preservation, and under their influence men will destroy whatever stands in the way of their advancement.

The second class of faculties is the intellectual. Their function is to acquire knowledge, classify, and draw inferences. The third class is the moral or spiritual. This group of innate powers is from its very nature unselfish, and ought therefore to rule the others.

There is also a fourth class, which occupies an intermediate position between the intellectual and the moral, called semi-intellectual powers. Such are the love of the beautiful and the sublime, the artistic and imaginative faculties.

Which group of innate powers shall dominate the constitution of man has been a battle question for ages, and will be for ages yet to come. There has been a mental conflict raging all the time within man's constitution. His whole life is but one vast struggle of these innate powers fiercely contending among themselves, and with the circumstances of man's environment, for the mastery of the inner stronghold of his character. Oh! if we could but pierce the shell which hides the agony of conflict raging within the constitutions of our brothers and sisters, we should have a truer conception of how difficult it is for some to arrive at the main-headland of their character; and instead of spurning some of our fallen brethren, we would weep bitter tears of sympathy for them. It may be a bloodless fray that rages, but still it is none the less real. There is something of the agony of this internal conflict expressed by David when he exclaims, "I am weary of my groaning; every night wash I my bed, and water my couch with my tears." This conflict is the struggle between the animal, or flesh man, and the moral and spiritual man. Yet none of the innate powers of man's constitution are evil in themselves. God has not created evil in man; He has not created powers in his constitution whose function is to drag him down to perdition. Every part of man's constitution was designed for a right purpose. This may seem a glaring paradox, but it is nevertheless true. It is the perversion of the primitive functions of the innate powers of man which leads to the perpetration of evil. All those crimes of horror which chill our blood to hear them mentioned, such as robbery, murder, and rapine, belong not to the primitive functions of any power in man. They follow from perverted functions of man's animal nature. To fight and kill springs from man's lower propensities; and yet, in his physical environment, it is necessary for man that he should resist aggression and destroy the enemies of his existence and advancement. If man had not these strong

aggressive and self-preservative powers, he could not maintain himself upon this planet. Yet it must be borne in mind that these powers have for their legitimate sphere of action only self-preservation; the moment they go beyond this sphere, they pervert their function and work evil in the sight of God.

That these propensities may not go beyond their legitimate sphere of action, a kind and beneficent Creator has placed by their side a higher group of innate powers, designed to guide their manifestations. Whenever there arises in the bosom of man a thirst for vengeance upon his neighbor or enemy, there arises at the same time a feeling of pity and compassion, which says, "No, let him live; restrain your vindictive feelings." Thus, when a covetous desire springs up, and man meditates an unjust action to satisfy it, the moral powers are never weary in protesting against injustice. And this mental combat is carried on with varying intensity and with different results, according to the development of each region in man. In the criminal class, the lower powers are more highly developed, and tyrannize over the spiritual; and hence the dreadful deeds perpetrated by some men — deeds such as cause the highly organized to lift up their hands and wonder who could do them.

There is another class whose groups of innate powers are so nearly equal in activity that they spend their time in alternate sinning and repenting; they give the world the impression that they are hypocrites. They sin to-day and weep to-morrow. They cry out, "O God, save me from the burden of my transgressions!" and yet by their own deeds they make that burden heavier than they can bear. The members of these classes demand every attention upon the part of Christians; they should be placed in favorable circumstances, and every occasion of temptation should be removed.

The third class are those whose moral faculties are in the ascendant. The individuals belonging to it pass through the world as shining lights—as examples for

men to follow. It is easier for them to fight the battle of progress than those who are members of the other two classes. But if one of these should be betrayed into a great sin, the grief is more deep, the remorse more heartfelt, and their conception of sin more heinous. The victim loathes himself, and thinks that everybody despises him because of the sin he has committed. The utmost stress of Christian sympathy is needed with men of this class, for if they are cast out from society, and forced into paths of sin, they become the most unhappy of mortals. Compelled by others, or by the circumstances in which they are placed, they again commit sin, and as their nature is highly sensitive, they feel a loathing repugnance for the sin just committed. The mental struggle here is often terrible, and the result has been in many cases of the most appalling nature. When a young man or woman of a highly organized temperament, one whose spiritual faculties predominate over the animal, who has been always a zealous worshipper of God and an ardent philanthropist in the cause of men, whose soul has ever burned with high and holy desires, becomes involved in a crime, which in a moment of strong temptation was committed, and finds that by this one act he must fall from his lofty pinnacle of Christian eminence; that he must forfeit the respect and love of his friends, or, if a woman, she must wander forth as an outcast forever; how terrible must be the conflict, how awful the remorse which overwhelms the soul. Oh! how many young women, or young men, in the agony of poignant grief which follows the commission of a first great sin, have, in the awful struggle of the higher with the lower nature, found how strong a lion was slumbering in their constitution, and which this one act has awakened! It is not strange, then, that many such men, caught in the whirlpool of this fearful combat, blinded, dazzled, and stupefied with the intense realization of the enormity of their sin, have lost all hope, and have sought to end their misery, and to

avoid shame and dishonor, by laying violent hands upon themselves!

This mental conflict is no mere product of the imagination. We are all subject to it, more or less. What, then, shall we do to gain relief from it and secure the best results? The true revelation of all that conflict is, that the moral faculties should rule. The spiritual and moral powers are by their very nature fit to rule, because they are not selfish. The goal of all the spiritual and moral powers is outside of the sphere of self. Thus benevolence is no mere sentiment whose function is to pity self, but it goes out to all suffering humanity. The love of God finds its highest enjoyment in serving God. Conscientiousness proclaims the right over might. And so on with each spiritual and moral faculty; its function is beneficent actions for the welfare of others. What stronger proof can there be than this for the supreme rule of the spiritual over the animal nature?

What, then, is the province of the intellect, if the moral powers rule? The moral faculties, although higher in their nature than other parts of man's constitution, may, by preternatural excitement, lead to various excesses. Thus, veneration, whose genetic function is reverence for the great and noble, more especially for God, if not regulated by the intellect, may lead to fanaticism and reverence for rites and ceremonies which delay the advance of man's higher nature, and also degrade our conceptions of God, by placing between man and his Creator a barrier of mere forms and external observances. In other words, this faculty in and of itself gives only a feeling of adoration for the great and venerable; but the right direction of that adoration is the function of other faculties, especially the intellectual. So also the love of justice, which gives the sense of rightness and "oughtness," has its domain of right things enlarged by reflections of the intellect, although the intellect itself never prompts the feeling of obligation. So with our conception of the spirit world; the abuse of this faculty

is seen in modern spiritualism. And so on with all innate powers which we call spiritual or moral; they may, when unguided by the intellect, be subject to delusions and fanaticism. Each innate power in man has its own proper function, and these functions may be in apparent antagonism to each other. Thus the philanthropic tendencies may be hindered in their beneficent work by such feelings as hatred, envy, and self-love, which are perverted manifestations of man's animal nature. In such cases, the intellect must come in as an arbiter to decide which class of feelings shall prevail. But while we admit that, to the intellect, must be allotted the high function of balancing the various elementary powers, and of rendering judgment upon their claims, yet it must not go beyond this and usurp what does not belong to its jurisdiction. The intellect alone is incapable of arriving at right conceptions of the principles of duty, honor, love of God, and love of man, without the feelings of man's moral and spiritual nature.

The intellect is not an infallible guide, which gives decisions according to principles of its own creation. It must decide upon the testimony presented by the other parts of man's constitution. And, should there be any part of the testimony omitted, either by partial development of innate powers, or from neglected education of these powers, the decision will be one-sided and erroneous. Thus, suppose a person with large intellectual powers and small or deficient moral sentiments, is called to decide religious questions, you can expect nothing from such a man, however high his intellectual attainments, but erroneous judgment regarding the very fundamental principles of religion. Suppose, for instance, a man like John Stuart Mill comes before you and declares that he does not believe in a personal God. He probably tries by logic to prove that such a God can not exist; but the trouble with such men is not in their logic, not in their intellects, not in their acquirements, but in a more vital thing than all these: it is in a marked defect in

their constitution; in other words, something is wanting in the make-up of such men. It may be that the innate power which we call the perception of God, which is a part of every harmoniously organized human being, is deficient or almost obliterated from weak endowment, or from neglect to educate that particular power. So, also, that judge whose sentiment of justice is small, will not be scrupulously exact in his decisions, even though his intellect is keen. The same may be said concerning every innate power of our constitution. The intellect does not originate sentiments or feelings, but rather is incapable of drawing right conclusions where these sentiments or innate promptings are deficient.

What, then, shall we do in order to approach nearest to absolute right? What shall we do to gain the highest development of our constitution? This is a most momentous question. As men we find ourselves subjected to influences, external and internal, which appeal to the various parts of our constitution. In our struggle with the physical environments which of a necessity hem us in upon every side, and with internal conflicts of our higher and lower natures, what shall we do to preserve the proper equipoise of our faculties? is a question of paramount importance. The first grand principle is to seek to develop harmoniously all the innate powers of our constitution. Let no single faculty, or group of faculties, dominate the entire constitution. We can only attain perfect manhood by giving full scope to every part of our being. This is by no means an easy task. Very few of us are born with harmoniously arranged dispositions. There are many weak points in our natures which make us differ from other people and from the highest organization. But the worst of all is, that where we are weak we think we are strong, and where we are blind we think we can see. We are prone to consider that those very deficiencies which cause us to differ from other people are indications of our own superiority. Thus, for example, how many men, who do not

believe in God or a future state, consider that they are so much the wiser because they do not have such conceptions. They even sneer at the majority of Christian men, and say they must be insane to believe in such doctrines, to give way to such absurd delusions. Like Festus of old, they say, "O Paul, thou art beside thyself; much learning doth make thee mad!"—only they would leave out the word learning as not applicable to modern Christians, and insert the word superstition. We Christians would not regard much these sneers if their real origin were only apparent to all; but alas! there are a number of men led away by the deceitful glamour thrown around them, on account of their great reputation for intellectual and scientific attainments. The truth is that we have all different capacities, which fit us to shine in diverse spheres of life. The faculties which make a man a good scientist or mathematician, do not necessarily constitute him a good theologian. The scientific faculties are important in the theological field, but they are not what chiefly constitutes the theologian.

There is a class of spiritual powers which a man must possess in order to have right conceptions of religious principles. You might as well expect a baboon to write poetry as sound, theological views from those who are deficient in the spiritual powers of the human constitution. In making this assertion we claim no more than is granted to other members of the human family. We are all compelled to acknowledge that the poet is a poet because of special endowments. Shall we then ignore poetry because *we* have no taste for it? Shall we deny the truths of theology because we can not comprehend them? I think not; yet many proceed just upon this principle, and ignore everything which does not chime in with their peculiar development. We stand in awe of a great orator. We are amazed at the fluency of his speech, his fervid imagery, his wonderful control of human passions. We confess that we are unable to do anything so marvellous,

and yet the elements of oratory are in us all, but not in that excessive development which constitutes the born orator. Yet there are individuals so constituted that they can see no utility in oratory. They prefer the prosaic way of stating things which generally sets the majority of people to sleep, rather than that round and full utterance which appeals to man's whole constitution. How often do we hear persons express themselves thus after having listened to a sermon or a lecture: "Well, I did not like that speaker last night"; and immediately he concludes, because the discourse was not pleasing to him, that all did not like the speaker. But there may be no virtue in that man's dislike—it may be born of the weakness of his own nature. It may be something which he ought to be ashamed of instead of glorying in it. So on in every department of life we find men who mistake their own deficiencies for virtues—men who are perpetually setting themselves up as standards in departments for which they are by nature unsuited. These men, like Aunt Lucy, who thought because a particular kind of medicine cured her child, that the same medicine would infallibly cure every disease and everybody's child, persist in measuring all men by their partial judgment. It has been men of partial development who have caused all the trouble both in politics and religion. History proves this. Theologians who possessed the intellectual and dogmatic faculties more developed than the other parts of their constitution, maintained that their conceptions of religion were right, and in a narrow and bigoted spirit strove to throw an iron fence around a few acres of the mental field in which they vainly sought to confine the whole human family. So in matters of church-worship, men of hard and solemn natures sought to crush out beauty and music from God's sanctuary.

Men of partial development in every age are finding fault with their brethren because they do not conduct themselves as they do. One man objects to elocu-

tion in the pulpit; thinks it is sacrilegious to be natural in preaching; regards an artificial manner, a drawling nasal voice, or the "holy tone," as the only appropriate way of delivering the service. So some object to ritual, while others are so fond of ritual that they dive to the bottom of the turbid streams of mediævalism to find material to adorn the church service.

The innate tendencies of the characters of some impel them in certain directions, or give them a love for certain phases or forms of religion, and they mistake this peculiarity of theirs for superior zeal to God and His church, whereas it is only their mental idiosyncrasies they would satisfy in the name of religion. A more harmonious development of their faculties would enable them to see that their brethren were right, only that they were embodying their conceptions of deity according to the dictates of another set of innate powers.

But it is not only inside of the Christian fold that men of partial development cause trouble. We find them in every department of life. Teachers of rhetoric, who attempt to mould everybody into one style, which they regard as the model style. A large class of small minds is made up of those who rail against Christianity. Failing to comprehend its high truths they can not conceive how anybody can be led away by the absurdities of faith. They deem Christians to be idiotic, insane, or superstitious. As this assertion bears directly upon the principle which I am endeavoring to impress upon you, that the only sufficient authority in religion is the judgment of those whose constitution is full and perfect in all parts, we shall try to discover who are the insane persons, the Christians or the unbelievers. An insane or idiotic person is one who has lost the balance of his faculties, or who may be deficient in one or more powers that we regard as an integral part of the human constitution. Evidently the Christian can not be idiotic or insane, because nearly all of the human race have believed the car-

dinal doctrines of his religion. It is a part of the human constitution to believe in God and a future state, and in many other truths of the Christian religion, and, as such, it has as much claim to our regard as the intellect. Skepticism with regard to God's existence may arise in some minds because deficient in the element of spiritual apprehension of God; and as this element is necessary to a full and complete character, it would seem that such minds are defective. It is high time that men should be met face to face with their own constitution. It is productive of the most astounding evils to have people constantly mistaking their own idiosyncrasies and defects for superior intelligence. If men will adore their own defects it can not be helped; but it is surely time that we, who are interested in the highest development of our race, should show those deluded ones that what may be admired as intellectual acuteness is oftentimes the result of serious defects in their own organization. It is time that we tell those who do not believe in a personal God and a future state that this condition, instead of being a reason for boasting, ought to be deeply regretted. Jesus was wont to call such men blind, and leaders of the blind, and so they are. They lack spiritual receptivity, and their aim should be to develop their spiritual nature.

I am not pressing a principle here in behalf of theology which is antagonistic to everything else. It is a principle recognized practically everywhere. No superintendent of a railroad would be so stupid as to employ a color-blind person as a signal-tender. How then do you expect that a person who is partly God-blind can give sound theories about the person of God? You recognize this truth in poetry, in philosophy, in science, and in fact in everything; why then do you refuse to recognize the same principle in theology? It has been my endeavor throughout this sermon to impress upon you the necessity of developing every part of your constitution, because there can be no symmetrical thinking unless

there is harmony between the elementary powers of your nature. The true end and aim of all Christian efforts to advance mankind is to bring about this harmony and right relation with God. Let us then study man as he is, not man as forming a member of a particular circle, but man as he appears all the world over. Let us learn not to sneer at or despise those who differ from us, but let us rather seek to understand their peculiarities. We ought to rejoice when we find those who differ from us, for their characteristics may be just those we need to cultivate; and if we study them we shall be aided in developing our weak points. Let us not regard any part of man's nature as the only part fit to be preached to continually. The only effective, the only real preaching which can last in every church among all classes of people, and in all ages, is that which appeals directly to the human constitution. Deem nothing too insignificant which is an integral part of man's make-up. Strive to enlist every sentiment, every emotion, as well as the intellectual faculties, in the interest of God. A wise and beneficent Creator has so constituted us that we can not and will not fall into mathematical lines of thought, that we will not toe the mark laid down by men of partial development. The human constitution pants above all things for freedom, and freedom it will have even at the expense of what some theologians call religion. Progress is the goal of every human being, and every innate power in man's constitution will have something to do in that progress. Do not neglect to enlist all, then, for all are legitimate, when rightly employed, in the sight of God.

There is no reason why beauty, sublimity, imagination, love of God, love of man, intellectual conceptions, and even grim logic should not unite together in one grand swell of worship to God. The coming man will be different from his fathers. He will be a broader product. He will be more able to grasp all his constitutional endowments. As time rolls on men of special talent will have less

and less influence. They will be revered in their own domain, but men will be cautious how much credence they give to what they say upon matters outside of that domain. Men of full and perfect characters will be the recognized leaders. If we wish to study human character in its entirety, in its harmonious development, let us look upon Jesus of Nazareth. In him there was no spot or blemish. No narrow theological views led the tenor of his life. In him intellect, sentiment, feeling, and spirituality were so marvelously blended that we can not find a single syllable spoken by him, or a single act of his most eventful life which we can criticise. He stands out as the only figure in history, a typical man, perfect, complete, symmetrical in every lineament of character, in every trait of his manhood. "If I be lifted up I will draw all men unto me" are his own words, spoken before his death, and referring to his mysterious sacrifice. Yet how true are these words, even in connection with man's constitution. He has every power in his being capable of attracting men. He will draw all men unto him, because he contains the nature of all men in himself.

Look upon Christ and we shall find in him a sufficient answer to those who would deprive us of our way of worshipping God. Do we love man? look upon Him and we shall see that feeling manifested with an intensity never experienced by any human being, however perfect. Do we venerate God and sacred things, do we pity, do we weep, do we reason, do we feel the fires of oratory, do we make our God more real by the divine conceptions of the imagination? so did Christ. He appealed to every innate power in man's constitution. He was like us in all respects, different only in one, and that one he came to remove, the cause of all our weakness, the odious, the repulsive destroyer of the harmony of our constitution, sin. By the study of Christ's constitution we shall learn our own imperfections, and by following in the footsteps of his most holy life we

shall slowly but surely attain unto perfect manhood. And, as we advance, in development, especially spiritual improvement, we shall abhor, more and more, narrowness and incompleteness, and long for perfection, for symmetry, and in that very longing will throw off the bondage of all masters who are but specialists and embrace him as our only Master in whom alone there is perfection. Then if some God-blind man cries out there is no God, we shall look upon the cross of Calvary, and when we see Him who came to manifest that God to us, we will fondly cling there and heed not the vain babblings of the skeptic. If a Tyndal comes to us and wishes to subject that power in our constitution which makes us fall on our knees to worship God, by what he calls a prayer-gauge, we will look upon those lips which said, "Our Father, who art in Heaven," and tell Tyndal there is the best prayer-gauge in the world. So when a John Stuart Mill steps up to us, and in the name of partial science tells us that we are nothing but a bundle of sensations and permanent possibilities of sensations, we will kindly direct John Stuart Mill to Calvary, and pointing to that Saviour quietly reply, that there was more than a bundle of sensations in that Man. Whose authority shall we follow—you, John Stuart Mill, a specialist in philosophy, or Christ, the universal Magnet? Ah! there can be but one answer to every one of these men; it is an answer I have put to them upon many occasions, and they could never evade its force. They are bound to acknowledge that Christ was the only perfect man. Then if that is so, he is the only authority, the only master of the human mind, the only king to obey.

But this is not all; Jesus is not only the master-exponent of the human constitution, but, by a wonderful power inherent in himself, and in the Father, he is able to so work upon the constitution of all men through the instrumentality of the Spirit that those of us who are imperfect may increase in stature until we come to perfect manhood. There is then

the joyful hope that this mental combat may cease, that the weary strife will some day be over. As we advance day by day under spiritual guidance, day by day we take in larger views of man's character, day by day we have clearer conceptions of divine truth, and day by day we gain

increased strength, so that our moral and spiritual nature will triumph over our animal nature, and the end will be a complete triumph. It is possible that the last of our race upon this earth may attain unto the fulness of the stature of the perfect Christ. THOMAS A. HYDE.

IT IS WELL.

YES; it is well! The evening shadows lengthen;
Home's golden gates shine on our ravished sight;
And though the tender ties we try to strengthen
Break one by one—at evening-time 'tis light.

'Tis well! The way was often dull and weary;
The spirit fainted oft beneath its load;
No sunshine came from skies all gray and dreary,
And yet our feet were bound to tread that road.

'Tis well that not again our hearts shall shiver
Beneath old sorrows, once so hard to bear;
That not again beside Death's darksome river
Shall we deplore the good, the loved, the fair.

No more with tears, wrought from deep, inner
anguish,
Shall we bemoan the dear hopes crushed and gone;
No more need we in doubt or fear to languish;
So far the day is past, the journey done!

As voyagers, by fierce winds beat and broken,
Come into port, beneath a calmer sky,
So we, still bearing on our brows the token
Of tempest past, draw to our haven nigh.

A sweeter air comes from the shore immortal,
Inviting homeward at the day's decline;
Almost we see where from the open portal
Fair forms stand beck'ning with their smiles divine.

'Tis well! The earth with all her myriad voices
Has lost the power our senses to enthral;
We hear, above the tumult and the noises,
Soft tones of music, like an angel's call.

'Tis well, O friends! We would not turn—retrac-
ing
The long, vain years, nor call our lost youth back;
Gladly, with spirits braced, the future facing,
We leave behind the dusty, foot-worn track.

—Chambers' Journal.

COMMEND WELL-DOING.

AMONG the moral forces which act on men's inner lives as steam and heat and electricity do upon matter, there is one great agent which we think might produce tenfold the effects that are generally obtained from it. That agent is Praise. If there is one old saw which we heartily repudiate and detest it is that which runs—

"Praise to the face is open disgrace!"

We never heard any such solemn saying about *blame* to the face! And a great many people act as though criticism and fault-finding were very proper and healthful appliances for human nature, while praise was only a sweet poison.

The idea that praise, when deserved, is injurious, supposes the one praised to be either the victim of conceit, or a fool. To persons of ordinary modesty and common-sense, just praise is at once a cordial and a tonic. To sensitive and diffi-

dent natures it is almost a vital necessity.

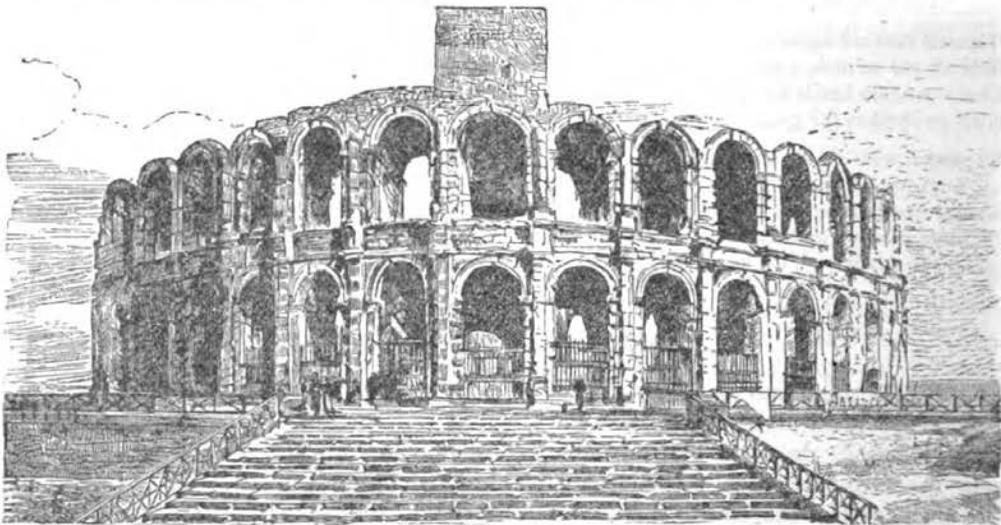
Many a minister sends his hearers home delighted and strengthened by his sermon, and then suffers from self-distrust and anxiety lest he has failed. A few words of appreciation would inspire him wonderfully, but no one gives them, because no one imagines that he can be ignorant of what all others know so well. At the other end of the scale is the drudge, the household servant for example, whose work is humble and out of sight. A man eats his nicely-cooked dinner at home, and forgets that human effort and human feeling have anything to do with preparing it. Perhaps a good-natured word to his servant would give her a pleasant sense of success, that would make her day seem bright instead of dull. As for men who do not praise their wives, they are beyond preaching to, they are "worse than infidels."

ARLES AND ITS ANCIENT RUINS.

ARLES is a town of France, situated on the left bank of the principal branch of the lower Rhone, at the point where the river divides to form the island of Camargue. It is in Provence, department of *Bouches du Rhône*, forty-six miles N.N.W. from Marseilles. It was originally called *Arlait*, which means "near the water." This orthography indicates the Celtic foundation of the place. But when Gaul, now France, was conquered by Roman legions under Julius Cæsar, and the country occupied for a long time afterward by the Romans, they latinized the

ago, sometimes even less; for Arles is not yet done growing, its population having in the six years from 1866 to 1872 increased from 26,387 to 39,117. Its population at the present time may be set down in round numbers at 50,000 souls. It was formerly an unhealthy place, subject to malaria, owing to its low situation and the marshes in its vicinity; but the latter have been for the most part drained, which has added greatly to its salubrity.

Arles was a place of importance at the time of Cæsar's invasion, and became a prosperous Roman colony, and the



THE AMPHITHEATRE, EXTERIOR, WITH APPROACH.

name, writing it *Arelate*. Then, when the Franks came, entered in and took possession, the orthography was again changed, to make it accord the better with their vernacular; they modernized it into Arles, and so it has remained. Thus we see the name has passed through three several stages of development, and from the small portion of the town's history already given, it may be presumed that it is a very ancient place; and it is one of the oldest towns in France. But although old, it is not to be considered as one of those finished towns so often met with on the continent of Europe, the population of which is no greater now than fifty years

ago, sometimes even less; for Arles is not yet done growing, its population having in the six years from 1866 to 1872 increased from 26,387 to 39,117. Its population at the present time may be set down in round numbers at 50,000 souls. It was formerly an unhealthy place, subject to malaria, owing to its low situation and the marshes in its vicinity; but the latter have been for the most part drained, which has added greatly to its salubrity.

Arles was a place of importance at the time of Cæsar's invasion, and became a prosperous Roman colony, and the seat of a prefect. Many indications of Roman occupancy still exist in the ruins of public buildings and works characteristic of that people. Among the most notable are the Roman Forum and the amphitheatre, modelled after the Colosseum at Rome. The latter was the largest amphitheatre built by the Romans in Gaul, measuring 459 by 341 feet, with a seating capacity of from 20,000 to 30,000 spectators. It is still perfect all around up to a certain height. There are also the ruins of two temples, one of which in mediæval style, with a splendid portal arch, might be called a cathedral; of an aqueduct; of a cemetery called the Ely-

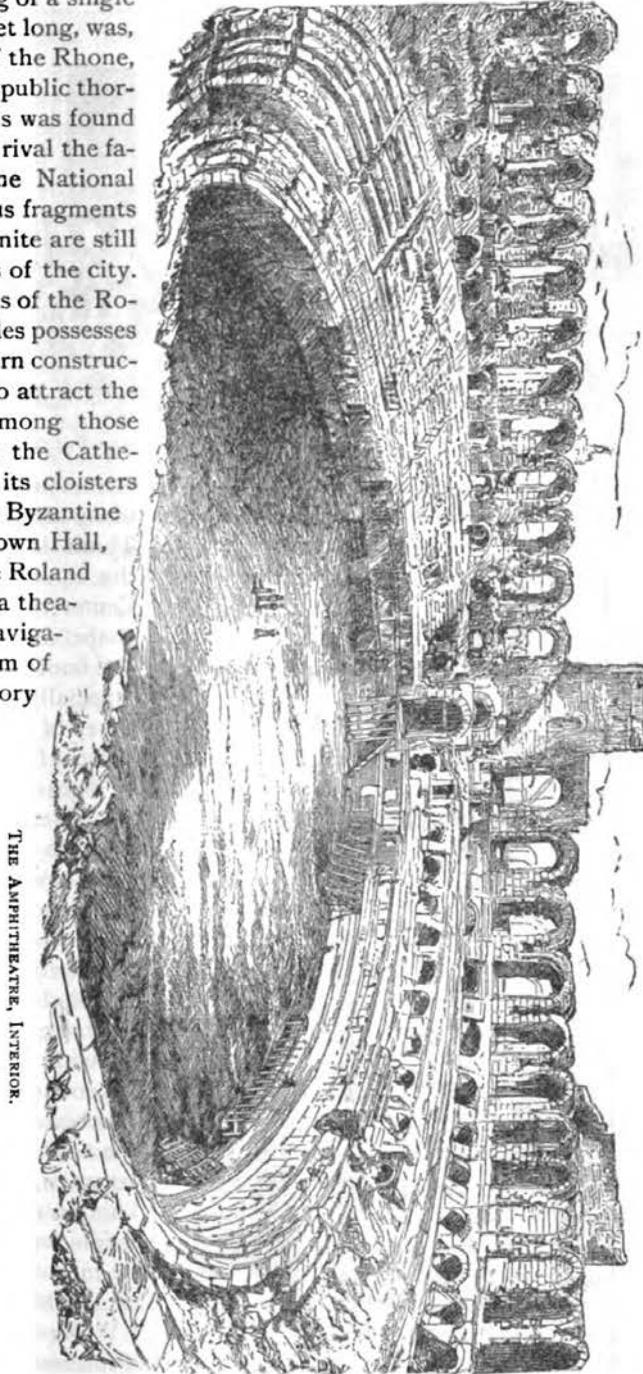
sian Fields; and of a triumphal arch. We must not forget to mention also the ruins of the palace of Constantine the Great. An obelisk, consisting of a single block of granite about fifty feet long, was, in 1389, dug out of the mud of the Rhone, and now stands in one of the public thoroughfares. A statue of Venus was found here in 1651, which is said to rival the famous Venus de Medici in the National Museum in Paris. Numerous fragments of columns of marble and granite are still to be seen in various quarters of the city.

Besides these ancient works of the Romans now mostly in ruins, Arles possesses many buildings of more modern construction which would be likely to attract the notice of the traveller. Among those most worthy of mention are the Cathedral of St. Trophimus, with its cloisters and beautiful doorway in the Byzantine style of architecture; the Town Hall, designed by Mansard, and the Roland Tower. There are here also a theatre, a college, a school of navigation, a library, and a museum of antiquities in natural history which is described as more than usually fine, in fact superb.

In the fourth and fifth centuries of the Christian era, several synods of the Church were held here, viz.: in 314, 354, 452, and 475. Arles was at a subsequent period the residence for a time of the Gothic King Eurch; and in 879 it became the metropolis of the kingdom of Arelate. At the present time numerous manufactures give employment to an industrious population, and this again furnishes a market for the productions of the surrounding country. There are manufactures of silk, stimulants, hats, glass bottles, etc., and the encyclopædias say the sausages made by the provision dealers are justly esteemed; though we rather think these

are made in the country round about and brought here to find a market.

There are many things in Arles to at



THE AMPHITHEATRE, INTERIOR.

tract the tourist, and we should advise the traveller on the Continent to spend a few days here; especially as it is now so

easy of access by railway from Marseilles, Avignon, Nimes, Montpellier, etc. There are two good hotels, the Hôtel de Ville

self comfortable here without doubt. Besides the objects of interest already mentioned, the scenery in the environs



RUINS OF THE ROMAN THEATRE.

and the Hôtel du Forum. The latter is situated in a small square, the Place du Forum, so called from its contiguity to



REMAINS OF THE FORUM.

the ruins of the old Roman Forum. The tourist will be able to make him-

self comfortable here without doubt. Besides the objects of interest already mentioned, the scenery in the environs is romantic and beautiful, and there are many fine drives in the neighborhood. There is a pleasant promenade along the banks of the river, with the Roman Cemetery to the right, with its quaint chapel and its stone coffins. Then there are boulevards for driving, and a drive especially interesting is that to the ruined abbey of Mount Majour, at one time the home of St. Trophimus; that is, before he became bishop of Arles. And there are other points of interest to which excursions may be made. Although Arles and its people are usually represented as being more Italian than French, we have there something characteristic of old Spain, viz.: the sport of bull-fights, much modified to be sure, toned down; as the spectacle consists in some peasants playing with a bull or two brought in from the country for the purpose. No spears or other murderous instruments are used, hence the bull is never killed, seldom wounded, and sometimes not hurt at all. This serves to entertain and amuse the people on Sunday afternoon, who assemble in holiday costume for the purpose in the old Roman amphitheatre.

While describing the different objects of interest in this old French town, nothing has been yet said of the citizens themselves; and they, as a study, are not wanting in interest. And is not human nature in any of its forms more interest-

ing than the study of inanimate objects? French as they may be in name, and French as they are in many of their characteristics, notably their politeness, they still bear unmistakable evidence of an admixture of the blood of their ancestors with that of their Roman conquerors. They bear themselves with the dignity of the old Roman masters of the world, a dignity which will not allow them to be hurried. Especially is this seen in the

women, the matrons usually displaying a dignity of manner that any high-born dame might envy. The magnificent complexions too of the young women and girls add to a beauty in other respects which is proverbial. And their beauty is enhanced by the full holiday costume of old times, which many still wear. The elder women wear a peculiar head-dress and full folded kerchief over black or brown bodices.

J. C. L.

G I R L - I D L E N E S S .

MUCH has been said and written about idleness. The copy-books of our childhood were full of warnings of the dangers of idleness. We were told that idleness was the father of crime and the mother of mischief. Such statements could not but seem to our minds greatly exaggerated, for our conception of evil was something active and positive. It might be wrong not to work, or profitably occupy one's time, but it could not be wicked. How could an idle man be criminal when he absolutely did nothing good or bad? Such was the logic of youth. Now we know that a man slothful in business is not necessarily passive in other ways. The man who is too lazy to work is not too lazy to be actively wicked. The idle woman is generally a gossip and a mischief-maker. The time which ought to be usefully employed must be taken up with something, and so the reputations of neighbors and acquaintances are torn to shreds in many instances, and the conscientious and useful members of the same household are continually aggravated by the idleness which affords leisure for such disagreeable and contemptible employment—that is, if they are not themselves sooner or later demoralized by it. An idle person can not bear to see others employed. A woman who has no home duties, or who does not attend to such duties, is a pest in any neighborhood. It may take her a long time to make her breakfast toilet, but her outside garments go on like magic

when she has once decided to make a morning or afternoon call. She will not work, and she will not let her neighbors work. Her acquaintances are kept in a state of chronic discomfort in the expectation of a visit, and a door-bell in her vicinity can not ring without striking terror to the heart of the lady of the house. A call from this idle person means simply loss of time without the slightest compensation. The work in the kitchen or the nursery must be abandoned, and this means, with practical, conscientious housekeepers, not only a giving up of the work for this time, but for some time to come. The work planned for that day, and omitted for that day, means overwork at another time, confusion and anxiety.

The plan of selecting one day, or a part of a day, each week for a general reception occasion, doubtless had its origin with some bored housekeeper who could not bear to have her valuable time constantly broken in upon and frittered away. There is nothing in the world more aggravating, more nerve-rasping, than to be compelled to entertain an idle person with a duty in the kitchen or the next room incessantly clamoring to be attended to. It occasionally arouses all the antagonism and latent ugliness in one's nature. Hands and brain are all ready for the work which has been laid out for this time. "When will she go?" the spirit keeps asking. "If she will only go now I can rush through with the work, and the morning will not be a lost one."

But she does not go. In fact, it is a rare thing for this particular kind of caller to take her leave until the utmost limit of time is reached, as well as the utmost limit of her hostess' patience. So, sensible ladies protect themselves by feeling at liberty to report themselves engaged, with the exception of the time set apart for the reception of guests.

One of the greatest difficulties that mothers have to contend with in the education of their girls is the idle Miss, who, having unlimited time at her disposal, drops in at study hours, at practising time, in the moments devoted to culinary and housekeeping employment; in fact, at any and all times which she takes a notion to select. It is a fact that two idle girls can more or less demoralize a whole set. There are only so many hours in each twenty-four that can be safely utilized, and so the careful mother, anxious to prepare her daughter for the responsibilities which, if she lives, she will be called upon to take up, fits the special occupation or lesson to the special hour. Everything is going on not only smoothly but enthusiastically when the door-bell rings, and one of the idle girls appears. That precious hour is broken in upon, every moment hopelessly wasted, for no one ever learns anything that is good to learn, from an idle girl. Having no occupation in life but to visit, or be visited, it is inevitable that she should be impressed and influenced in such a manner as to make her a dangerous companion. It may be that the idle girl is a relative, or so connected socially as to make it impossible to refuse to admit her, or there may be various other reasons for bearing with her; such as a natural reluctance to inflict pain, or lack of moral courage to protect one's time. And so it comes to pass that girls who would be industrious if they were let alone, are constantly interrupted by this at present very common pest. This is not the worst of it. The unlimited leisure at the disposal of these young ladies is frequently the cause of much discontent. "So-and-so is not obliged to take

care of her room." "So-and-so does not have to study after school." "So-and-so is not compelled to make bread and pies, and jelly, and darn stockings." "She can go out every evening if she pleases, while I have to be poked up at home all the time." "So-and-so's mother lets so-and-so go to the theatre, and she never has to do anything about her clothes except to select what pleases her." "O, mamma, I wish you were like so-and-so's mother."

This is the most discouraging feature of the whole unhappy business. It is bad enough to have precious time wasted through the instrumentality of an idle, empty-headed, undisciplined girl, but it is much worse to find that the daughter, who was once happy and pliable to the will and instruction of a loving, conscientious mother, is no longer contented, but is constantly comparing her lot with that of one whom the mother knows to be not only without promise of future usefulness, but in some cases absolutely unprincipled. Much precious freight has been dashed against this rock, and the trouble that has been caused by the influence of the idle girl in families can not be exaggerated. There seems no remedy for this evil save by the persistent refusal of mothers to allow their daughters to be interrupted in their studies, or domestic duties. The difficulties are almost insuperable, and after a certain age entirely so. It is only those parents who decide early and hold to their decisions through entreaty, tears, and temporary discontent, who can expect to keep their girls free from the pernicious influence of idle companions.

ELEANOR KIRK.

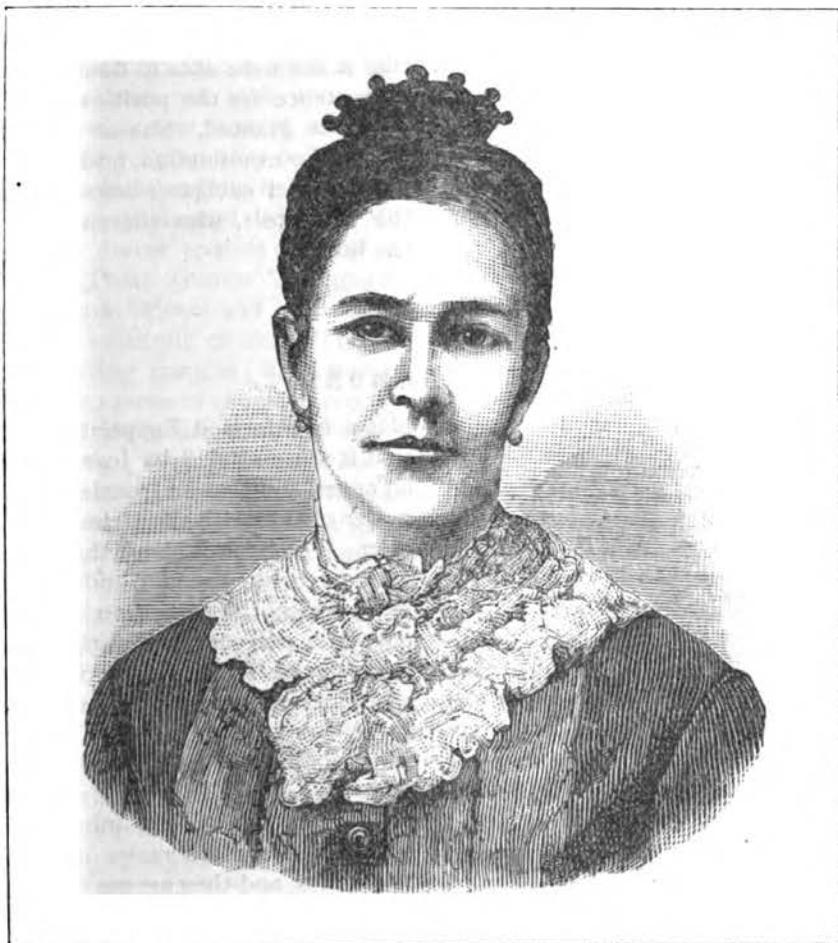
IT is stated that no woman whose name has appeared in a divorce court is allowed to be present in the drawing-rooms of Queen Victoria. It would be much more to the purpose if the Queen were to refuse to receive the men who have given occasion for such actions for divorce. But this would greatly enlarge the limits of the prohibition and exclude some who are high in position and favor.

CAPT. MARY M. MILLER OF THE STEAMER "SALINE."

THE author of "The Employments of Women" enumerates several hundred pursuits or branches of industry from which a woman may choose, and feel that in winning her bread by hand or brain labor she is not going beyond her "sphere." We think that among these

permission to navigate on the Red, Ouachita, and other Western rivers, besides the "father of waters."

The portrait offers to our inspection a lady of pleasing appearance. She is of a strong, enduring constitution, possessed of courage and emphasis, yet far from



employments that of steamboat captain is not mentioned, and yet it has been decided by high authority, even by the Board of United States Inspectors of Steam Vessels at New Orleans, that a woman may be competent to take the command of a steamer, since Mrs. Mary M. Miller has received a license to sail the Mississippi steamboat *Saline*, with

being rude or coarse in physical or mental composition. The reader to whom the mere fact of her appointment to a place calling for exceptional energy, nerve, and discretion, had been announced would probably infer that she was some large, muscular, ungainly woman from the back-country, whose unwomanly nature longed for the rough experience

of the boatman because it was out of keeping with the retired and gentle habits of the average woman. But Captain Mary Miller, when seen in a private parlor in company with other ladies, her quiet, unassuming manners would not be found out of harmony with them. She is young, married, with four children—and enough of the wife and mother in her nature to appreciate the duties of such a relation. This is what she says of herself: "I come of a steamboat family; my father was a steamboat man, and after I married Captain Miller—that was seventeen years ago—I, of course, spent much of my time on the river. We have a beautiful home in Louisville, and my little ones are all there now; but for the past four years I have been living mainly on a boat. My

husband used to do nothing but pilot, and I spent much of my time in the pilot-house, and learned how to manage a boat and how to navigate certain rivers in spite of myself. There is no reason why a woman should not know or learn how to manage a boat as well as a sewing-machine."

When Mrs. Miller applied for a license the inspectors were at a loss what to do in the case, and appealed to the Secretary of the Navy, who gallantly replied that if she were able to demonstrate her competence for the position the license could be granted. She at once offered herself for examination, and proved herself a skilful navigator before the eyes of the inspectors, who thereupon granted the license. D.

THE MORMONS.

[We are so much accustomed to reading other things of this "peculiar" people that the following picture is a very agreeable contrast. Albeit, the writer does not seem to be prejudiced on their side, but a candid witness.—ED. P. J.]

IF any one desires to learn something about anything, he must lay aside in a great measure his prejudice and preconceived notions, and examine the subject upon its merits. In this spirit I wish to handle this much-vexed subject—giving credit to whom it is due, remembering that a tree is known by its fruit whether it be good, bad, or indifferent.

The writer has lived, travelled, and lectured among this peculiar people; has studied their habits, religion, and customs; and therefore considers himself better qualified to discuss this matter than the tourist who stops in Salt Lake a few hours *en route* for San Francisco.

The "Mormons" are so called because they believe in a book called the Book of Mormon, which they claim is a history of a race of people who anciently inhabited this land of America, of whom the Indians are a remnant. They say that this book was engraved upon gold

plates in reformed Egyptian characters; that it was revealed to Joseph Smith by an angel, and that he translated it by the power of God with the Urim and Thummim. The book is about the size of and very much like the Old and New Testaments, with the exception that it does not teach polygamy. But the Mormons' proper name is Latter-day Saints—I say proper name, because I think every organization has the right to say what its name shall be, and this is what they call themselves.

The Latter-day Saints inhabit the valleys of the Wasatch range of the Rocky Mountains, and they are making new settlements in Idaho, Wyoming, Colorado, Arizona, and Nevada. They believe in having large families, and as a natural consequence they are multiplying very fast. As a people they are very hard workers. Their principal vocations are farming and stock-raising. To convince one of their industry, he only needs to ride over their railroads and behold their comfortable houses, well-filled barns, fattened stock, copious orchards, beautiful farms, great canals for irrigation, etc.

When they came here this country was a barren desert, with frost every month in the year (James Bridger, a mountaineer, offered Brigham Young a thousand dollars for the first ear of corn he could raise, so confident was he that nothing could be produced there); but now Utah is a "land flowing with milk and honey," abounding with delicious fruits and golden grain. Truly the desert has been made to blossom as the rose. Wherever they have gone they have converted the howling wilderness into a fruitful field, and no true man can look upon their prosperity and accuse them of indolence.

As to their religion, they believe it to be a direct revelation from heaven. They reverence the Bible and Book of Mormon as two divine records of equal importance. Their church is organized with the same officers and doctrines as the ancient apostolic church. They believe in building temples; have two finished and two more in course of erection. The most of them are firm believers in their religion. Prof. Fowler, who has lectured in their cities, gives them the credit of being "the most pious, godly, devout, faithful, and religious people he ever saw."

As regards temperance, they have a revelation given in 1833, in which they are told that tobacco and strong and hot drinks are not good for man, and that flesh should be used sparingly and only in times of winter, cold, or famine. The promise to those who live according to this revelation is that they shall be blessed with health, strength, endurance, long life, wisdom, and great treasures of knowledge. This revelation is called the "word of wisdom," and is extensively taught in public and private. There is scarcely a man in authority in the Mormon church to-day who does not keep this "word of wisdom," and the great majority of the members practice it as nearly as possible.

They teach that marriage is a divine institution; that its object is propagation; and that the fountains of life should never be tampered with except for the purpose of creating a new being.

Their excuse for practicing polygamy, or plurality of wives, is that it was revealed to them from God, July 12, 1843. They hold that every good woman has the right to bear children; that if two or more worthy women agree to have a worthy man for their husband and the father of their children, and he is agreed, that it is all right. They claim that it is better for a woman to marry a good man and raise a family by him, even if he has another wife, than it is for her to become a fast woman or even marry a drunkard, gambler, thief, or other bad character and thereby produce a family that would be a detriment to society.

Respecting their morality it may be said that they are truly virtuous. They have never established or patronized a house of ill-repute. Such a thing was unknown among them before outside influences came in. It is estimated that ninety-five per cent. of their youth are chaste. My experience among them as a lecturer confirms this statement, yet it may be a little overdrawn. They teach that the breaking of the seventh commandment stands next to murder in the catalogue of crime, and that murder is a sin for which there is no forgiveness. Of course they practice polygamy, and if having more than one wife, raising children by them, supporting their numerous families and educating their offspring, can be called immoral, then the Latter-day Saints can be charged with immorality.

The accusation that the Mormons are enemies of the Government is false. It is only a cry raised against them by a few political demagogues to wrest from them the rights of self-government. The only thing that can be said against them is that they regard the law against polygamy unconstitutional.

As far as education is concerned, they have their private, district, and high-schools, academies and universities, besides other associations and societies of learning. The last census shows that Utah has less illiteracy than a number of the States and Territories, notwithstand-

ing the fact that many of the Mormons are converts from the working classes of other nations who did not have the privilege of being educated. The study of the arts and sciences, including phrenology, physiology, etc., is taking strong root in Utah, and minds of genius may not be expected in vain from her ranks.

Taking them all in all, the Latter-day Saints are no worse than other people. Their history has been so vilified and traduced by their many enemies, that the picture looks horrible from a distance. An acquaintance with them teaches us that they are a society of human beings

who are trying to do right. If their religion is false they have been deceived, and the way to undeceive them is to teach them the truth. The only way to make them better men and women is to teach them better principles. If they are let alone, as Beecher wisely suggests, this will be done. Turning loose upon them the dogs of war, to destroy their homes and break up their families, will only have a tendency to turn them from intellectual progress, strengthen them in their faith, and enlarge their church with new converts.

C. H. BLISS.

LOVE NEVER LOST.

I PLANTED a flower to bloom
In my beautiful garden of Hope ;
And it bloomed, oh, so bright !
And by day and by night
It filled all the air with perfume.

And over it ever I hung,
And its fragrance with rapture inhaled ;
But the hue that deceives
Imbued its fair leaves,
And in pain to its petals I clung.

'Twas a fragile and perishing thing,
And the pitiless frost of the real
On its bosom, so white,
Left its withering blight,
And each of its beauties took wing.

But though in the spot where it bloomed
Nought remaineth save leaves that are sere
And a stem that is dead,
Whence the beauty hath fled,
And beneath are its blossoms entombed.

Yet the sigh that I breathe o'er its bed
Partakes of its own scented breath ;
And its life so divine
Is inwrought now with mine,
A fragrant, invisible thread.

Love never is lavished in vain,
Though its tangible object be gone ;
Though the treasure may fade,
And in ashes be laid,
Still its essence the heart doth retain.

ALMEDA COSTELLO.

SOUL AND MIND IN POETRY.

A NUMBER of the PHRENOLOGICAL JOURNAL, published not long ago, contains a sensible little article on "The Source of True Poetry," which it would be well for many sentimental would-be poets to read. The article is, in the main, true, but on one point we must beg leave to disagree with the writer. He says :

"The highest—the only true poetry—is written when the mind does not labor at all. The mind is perfectly calm and placid while grandest sentiments take wing of words and flutter to the page. There is no strain, no scuffle ; the poet stands 'neath the glow of the ethereal

ferency and spangles the page with light divine."

Did the writer of the above ever write poetry in that fashion, and if so, did he become famous for it? If he did we will admit that he is right. The theory is certainly a very pretty one, and, if true, one might well envy the happy favorites of heaven, who receive the richest treasures of the universe without even taking the trouble to gather them.

According to his theory we might reasonably expect the greatest souls to be the greatest poets, yet such is not the fact. One may have grand ideas, yet

they may be expressed so crudely that the sensitive ear is positively tortured.

It is not uncommon for editors to say (at least to themselves) of rejected poems: "The idea is good, but the construction is awkward, and the metre is horrible." On the other hand, the master-poet will take the simplest, commonest subject, and write upon it with such grace, elegance, and originality that we are fascinated—even refined and made better—by it.

"Made" poetry is certainly of all things most detestable. No natural endowment of wit, intellect, ideality, or sublimity can make a man a poet. The inexplicable *something* is still lacking. And this something, which we call *genius*, is certainly higher than mind, though not independent of it. The inspiration comes to the poet in the form of a thought, sublime and vast, that seems almost beyond the reach of language, and the intellect must search and find words worthy of it. Or it comes like a strain of most intoxicating music, which the poet must repro-

duce for other ears. It is like the mist on the mountains, like the clouds of the evening, like the star-lit arch of the midnight,—wordless, yet demanding all that is best of language. Ten men of feeling and intellect may stand on an Alpine summit and watch the light of a new day brighten from peak to peak till even the valleys are filled with its glory. All may deeply feel the grand beauty of the scene, yet probably not one could frame his thoughts in words—or, if he tried, his hearers as well as himself would feel how mean and inadequate were his words compared with the subject.

True poetry, then, is the result of both soul-power and brain-power, the soul giving the vision or wordless thought, which the fine intellect receives with reverent gladness and clothes with words, either tender or graceful, or sad or majestic, as the thought demands, while the cultivated ear is careful to allow no jarring words or uncouth construction to destroy the perfect harmony and beauty of the whole.

HELEN HAWTHORNE.

THE EGOTIST.

HE had all the bad qualities best calculated to make him a scourge to his family.

He had been rich and healthy from his birth, and rich and healthy he remained all his life through. He never allowed himself to be led astray; he had no failings—never made a promise that he was not both able and willing to keep, and never failed in what he undertook. His honesty was unimpeachable and he oppressed every one—relations, friends, acquaintances—with his proud consciousness of his honesty.

His honesty was his capital, for which he drew high interest. His honesty gave him the right to be pitiless, and to refuse all favors not prescribed by law.

He never looked out for any one except his own exemplary self, and he was extremely exasperated if others did not take all care of his own estimable personality.

With all this he did not at all consider

himself an egotist; on the contrary, he was very severe in his blame of egotism and egotists—naturally! The egotisms of others interfered with his own egotisms. As he was conscious of having no weak points himself, he neither understood nor excused weaknesses in others.

He had no comprehension of what forgiveness meant. He had never had occasion to pardon anything in himself. How could he know how to forgive others?

This monster of virtue raised his eyes to the face of his God before the bar of his own conscience, and said with firm, clear voice, "Yes, I am a good, virtuous man."

Then on his death-bed will he repeat these words, and feel no emotion in his heart of stone—in his spotless, perfect heart. Oh! the ugliness of self-satisfied, rigid, cheap virtue, almost more loathsome than the naked ugliness of vice.

TOURGENIEFF.



BLUE VIOLETS.

O, VIOLETS, blue violets, your bonnie blossoms
bring
A world of tender memories with each returning
spring;
O'er hill and vale your azure text inscribes its record
sweet,
And paints bright pictures of the past in beauty at
my feet!

For, as I look upon your bloom, I seem to know
once more
The joys of cloudless childhood, the happy days of
yore;
To live again those gladsome hours when care was
but a name,
And never o'er my laughing brow a shade of sorrow
came!

How oft, through sunny meadows, I sought your
blossoms fair,
And wove them into diadems a queen might proudly
wear;
While robins sang, and orioles, amid the budding
trees;
And hummed about your clustered sweets the busy
velvet bees.

And through the many changes of life's maturer
years,—
In times of joy and gladness,—in times of bitter
tears,—

Your loveliness, my violets, has brought its gentle
grace,
And, like some true and trusted friend, has claimed
a cherished place.

I know that many a tropic flower can boast more
gorgeous hue,
That some might prize their brilliant dye more than
thy tender blue;
But dearer far the violet's sweet and modest face
to me
Than all the glowing splendors of foreign lands
could be.

O violets, dear violets, when earthly cares are o'er,
And my mute lips and pulseless heart shall welcome
thee no more;
May some kind hand, with thoughtful love, ere I am
laid to rest,
Place thee, beloved blossoms, upon my peaceful
breast;

And plant thee o'er the grassy sod that makes my
lowly tomb
That, when glad future springs shall come in beau-
ty, and in bloom,
Your dewy eyes may tell to those who sometimes
linger near
Of her who loved, in spring-times past, to seek your
blossoms dear.

M. S. D. M.

BECAUSE MEN WANT THEM.

IN an article by Mrs. A. M. Diaz, which
we find circulating through our ex-
changes, that lady discusses the exactions
of the appetite upon the strength of the
housekeeping wife. She puts the burden
of guilt upon the men, with a degree of
justice to be sure, but is candid enough to
attribute the fault to habit rather than in-
tention—the habit of society, we should
say—in the matter of eating, which is
due as much to the fondness of women
for “cake and pie” as to the men’s liking
for the “fancy fixings” of the table.

Mrs. Diaz does not go into the hygienic
bearings of the diet she deprecates, but
deplores the wearing toil and care that
the constant preparation of cake and
pie in a household imposes upon the
wife, who is housekeeper and cook.
We shall leave the question of how
much the wife’s eating of the pastries
she makes has to do with her wear-
iness and ailments to the reflection of
the reader, while we grant a hearing to
Mrs. Diaz on the point of the unneces-
sary labor to which women submit to

please husbands and children, who are quite unconscious of doing any injustice.

—ED. P. J.

“What! do without cake entirely?” cries Mr. Livewell in alarm. By no means, sir! Poor human nature craves something sweet. The trouble lies in making *palate* king. In many families this is done at terrible cost on the part of the women. I say terrible, because human sacrifice, in whatever shape, is terrible. And when a woman uses herself up in cooking, and, as a consequence, dies, or half-dies, what is that but human sacrifice?

It was a remark made by Mrs. Melendy which first called my attention to this subject. I had been saying something complimentary of her very interesting little family.

“Ah, yes! Mr. McKimber,” she answered, “if I only knew how to bring them up as they ought to be brought up!”

I suggested that children need, more than anything, a mother's time and attention.

“But that's just what they can't have,” said she: “for, to tell the truth, the three meals take about all day, so I have to turn off the children.”

Mrs. Melendy is the woman whose husband “always wants his piece o' pie to top off with.”

I had frequently heard that remark in regard to the “three meals,”—heard it unconcernedly, as relating to a subject in which I had no interest. But when it was repeated that day by Mrs. Melendy, and in that connection, I was suddenly awakened to its full meaning; and the idea occurred to me that woman might not have been created mainly for the purpose of getting three meals a day. If she were, thought I, what a waste! for, certainly a mere meal-getter might have been fashioned out of cheaper material.

I am a curious person for following up any subject to which my attention has been particularly directed; and, in following up this subject, I have observed closely what goes on daily under the

name of housework; and I find it to be a never-ending succession of steps. Why, such an everlasting tread-mill would wear out a strong man! Not only a tread-mill but a hand-mill, and a head-mill: for hands must keep time with the feet; and, as to the head, I have often heard Mrs. Fennel tell Martha she must keep her mind on her work. And, truly, the calculating and contriving demanded by each day's operation require some mind.

Now, I had the idea, before I was awakened by Mrs. Melendy's remark, that woman's work was not of much account,—just a simple matter of “puttering” about the house. The tempting food which Mrs. Fennel serves up daily stood for a very small part of the labor which it actually represents. And, but for that remark, I might have gone on eating the delicacies spread before me with no more sense of their cost than if they grew on trees and were shaken down at meal-time. Since my eyes have been opened, those delicacies taste too strong of the toil to be relishable; for I see that the rows of pies on the buttery shelves, the mounds of cake, the stacks of doughnuts, do not come there by any magical “sleight o' hand,” but are wrought out of the very life of poor Mrs. Fennel,—literally, of her very life. This is not an overstatement, since it is plain to be seen that each day's labor makes demands which her strength is unable to meet. I have observed the languid way in which she drags herself about the house, now and then dropping upon a chair; have noted, at times,—at “hurried” times,—the worn, weary, “all gone” expression of her face; and have heard her take, oh! very often, those “long breaths,” which are sure signs of wearing-out.

Yes, the poor woman is killing herself with overwork. And when she rests, at last, beneath the turf, people will speak of the mysterious Providence which removed a wife and mother in the midst of her usefulness.

It is about time, one would think, to put a stop to this woman-killing. A

harsh phrase? It is not more harsh than the truth; for, if lightening labor will prolong life, insisting upon unnecessary labor is not far removed from that crime. And this unnecessary labor is insisted upon in one way or another.

For instance, I have Mrs. Fennel's own word for it, that pies are "the heft of the cooking"; have heard her speak of rolling out pastry until she was "ready to drop," of beating cake until her arms "hadn't one mite of strength left in them." Yet, to any suggestion that these and other superfluities be omitted, the answer has invariably been, that "the men-folks wouldn't be satisfied without them."

Mr. Fennel is a very good man; and the boys—young men of eighteen and twenty—are very good boys. If the direct question were asked Mr. Fennel which he most values, his wife's life, or the nice things she prepares for the table, he would answer with horror, if he answered at all, the former. In reality, however, he answers the latter. It is the same with the boys. The men-folks can't eat cold bread; therefore biscuits are rolled out, cut out, and baked, both morning and night: the men-folks make dependence on their cake; the men-folks must have their "piece o' pie to top off with"; the men-folks like to have a pot of doughnuts to go to.

Now, all these things may gratify the palate; but the point is, are they worth the price that is paid for them? I confess that it fairly makes me shudder, sometimes, to see those strong men sit down at table, and, with appetites sharpened by out-of-door exercise, sweep off so unthinkingly and unthankfully the results of Mrs. Fennel's long and weary toil. Do they not taste something in

those delicacies? Detect a flavoring that was never set down in any grocer's bill? They probably do not. Long habit has so accustomed them to the flavor of this essence of life, this compound extract of backache, headache, exhaustion, prostration, palpitation, that they do not notice its presence. It would be well for them to do so, however; for it is a terribly expensive article.

Oh, no! they don't taste anything but what may be bought at the grocer's or raised on the farm. If they did, if the cost of all these dainties were once made clear to our kind-hearted men-folks, they would not only be satisfied without them, but would beg Mrs. Fennel to stop cooking them; for neither Mr. Fennel nor the boys are wanting in affection for her. Whenever, by overwork, she becomes alarmingly ill, they are ready to harness the horse, and go seven miles for the doctor at any time of the day or night. Mr. Fennel never spends his money so freely as in medicine for his wife; and the boys seldom come home from the pasture without bringing her mullein, or some kind of herb, to dry. "So thoughtful of them!" the dear woman remarks with moistened eye, and cheeks faintly flushed.

All women are not as feeble as Mrs. Fennel? This is true; yet she represents a large class, and one that is rapidly increasing. Mothers of families calling themselves well and strong are hard to find. They too commonly break down and die, or break down and live. Go into almost any town, any country village even, where pure air and other conditions of health abound, and mark the sharpened, worn, pinched faces of the elderly women, the effects of overwork and unwholesome food.

THE SOUDAN.

AS we have given a sketch of Gen. Gordon, it may be appropriate to answer the question which many readers of the PHRENOLOGICAL have asked, Where and what is the Soudan? An ex-

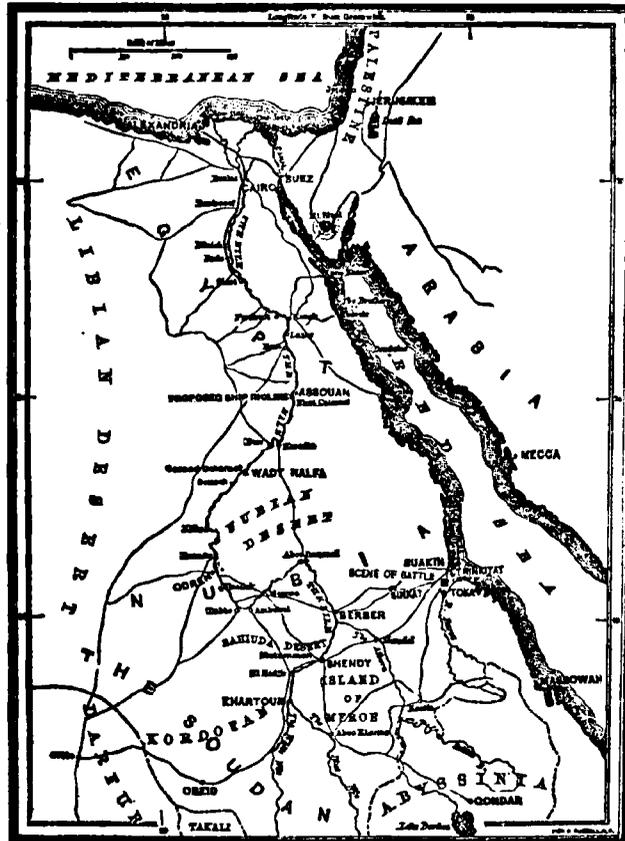
change enables us to describe the country in a condensed paragraph:

"The name bears different meanings, according as it is used by the Arabs or by the Egyptians. The former apply it to

designate the interior of Africa generally, and, following them, the geographers of Europe have given this name to all the countries along the southern edge of the Grand Sahara, from Senegambia and Sierra Leone on the west, to Darfur on the east. Etymologically, Soudan means simply 'the Blacks,' and is a corruption of the Arabic name Baladus-Sudan, 'the country of the Blacks.' As employed, however, by the Egyptians, and as referred to in the numerous telegrams lately received from Egypt, 'the Soudan' means not the immense tract of Africa, just described, but a tract to the east of it, which comprises the countries, except Abyssinia, on both sides of the Nile, south of the second cataract, which have during the last sixty years been formed into an Egyptian province bearing that name. The dependent province or empire,—for be it understood, the Soudan is not Egypt any more than Algeria is France—comprises much of Nubia, all Sennar, all Kordofan, and all Darfur, and has really any length and any breadth that the Pashas can reach.

"According to a report recently made to the British Foreign Office by Lieut.-Col. Stewart of the 11th Hussars, its length from north to south, or from Assouan to the Equator, is about 1,650 miles, but this makes it begin at the first and not at the second cataract of the Nile; its width, on the same authority, from Massowah, on the Red Sea, to the western limit of the Darfur Province, is from 1,200 to 1,400 miles. It probably, therefore, does not fall far short, if at all, of the dimensions of India. It is inhabited by two totally distinct races—the northern half by almost pure Arabs, most of them nomad

tribes, professing some form of Mohammedanism, and the southern half by negroes, who, though officially classed among Mussulmans, are really pagans, and are, roughly speaking, all sedentary and agricultural. Up to 1819 the Soudan was divided into a number of petty kingdoms and chieftaincies; but in that year Mohammed Ali, then the Khedive, sent his son Ismail to conquer the country. From



MAP OF EGYPT AND THE SOUDAN.

that time to the present the Egyptians have gone on extending the borders of their nominal sovereignty, but have never yet managed to obtain an undisturbed footing in any part of the vast territory they claim. The seat of the provincial government is at Khartoum, at the confluence of the Blue and White Nile. Khartoum can be reached from Cairo, from which it is some 1,500 miles distant by the Nile,—the railway stopping short

at Assiout, less than 300 miles from Cairo,—but the quickest route is by the Red Sea from Suez to Souakim, which may be regarded as the seaport of the Soudan, and thence by a caravan route of about 280 miles to Berber, where the Nile is touched, and from that point southward for about the same distance to Khartoum.

“It is difficult to determine the value of the Soudan country to Egypt. According to Col. Stewart, it has cost more to govern than the revenue derived from it, and hence the indifference shown by the present Khedive. Furthermore, this year to the expenditure side of the account will have to be added the cost of the present military operations. Apart altogether from the question of the expense, the

physical difficulties which bar the progress of the Egyptian forces will be understood from the description which Col. Stewart gives of the very district in which Hicks Pasha was engaged. ‘Of the country west of the White Nile,’ says the report, ‘between the parallels of Khartoum and that of Kaka, about eleven degrees latitude, the general appearance is that of a vast steppe, covered with low thorny trees, mimosas, gum-trees, and prickly grass. Occasionally low groups of bare hills are met with. The villages and patches of cultivated ground are few and far between. Water is scarce and stored in wells and trunks of baobab trees.’ This is a tolerably unpleasant situation for an army, with an enemy in front devastating the country.”

SHOES AND CHARACTERS.

A TROY, N. Y., newspaper has published a report of an interview between a shoemaker of that city and one of the newspaper attachés, who applied to the man of the last and waxed-end for repairs, and meanwhile elicited his views on the meaning of the way in which different people wore their shoes and destroyed them by use. After passing through the sieve of a reporter, although in this case the reporter did not spare himself, it may be well to read between the lines to get at the shoemaker's meaning, who, as a practical observer, must have exceptional opportunities from his bench to judge of balance and unbalance in “understandings.” He is a plain-spoken man, as most of his class are, and utters his opinions with an oracular emphasis which is not lost in the reporter's version. He said, in reply to the newspaper man's question:

“Yes, sir; they (worn shoes) beat palmistry all hollow. Take yourself, for instance; in your shoe I see vacillation, irresolution, fickleness, a tendency toward negligence or evasion of unpleasant duties, occasional spells of moroseness. Show me any person's foot-covering after

two months' wear, or often less than that, and I will tell you that person's character. If both heel and sole are evenly worn level the wearer is clear-headed, decisive and resolute, a good business man, a valuable and trustworthy employé, or an excellent wife and mother. If the outside sole is cut through, the wearer, if a man, is inclined to be adventurous, unreliable, and spasmodic in all its acts; if a woman, she is predisposed to boldness and wayward tendencies. If the inside of the sole is cut through, it indicates weakness and vacillation in a man and modesty in a woman. For instance, a certain merchant in this city whom I posted concerning this curious method of character-reading sends to me whenever he wants a new clerk, and he has received several of my customers on my recommendation. He says that shoeology beats phrenology all hollow.

“A few months ago there came into my shop a stranger having a pair of shoes with the outsides of the sole worn through and the toe somewhat cut away, while the hull was nearly as good as new. I said to my wife, after he went away, ‘That man's a sneak,’ and so he was. The

very next day a boy came up from the police station to get the shoes, and said the wearer had been arrested on a clear case of sneak thieving.

"A certain young man who has patronized me for years was keeping company with two girls, also customers of mine. I noticed that one of them wore out her shoes on the outside of the sole first, while the other stepped squarely and wore down both shoes alike. I've always had a liking for the young fellow, and knowing he was wavering between the two girls, I took him aside one day and showed him the shoes of his flames and told him what I have told you. The result was that he married the square-stepper and is happy, while the other girl disgraced herself and has gone to ruin.

"Do I believe that character can be moulded by keeping the shoes properly soled and heeled? Well, it has its influence. The gait of a person is as closely connected with his disposition as the expression of his countenance, though not so easily read by most persons. To continue to wear a shoe which is run over badly only tends to confirm the habit in the person's walk.

"I can also tell something of a person's tendencies by the size of the shoe, the breadth of the sole, the condition of the buttons and strings, the amount of wear on the toe, the condition of the

lining, etc. I would not advise a friend to marry a girl who squeezes a four foot into a number two shoe, for such a one is apt to prove vain, affected, and frivolous.

"Boots are but little worn by gentlemen of the present day, save in a few exceptional cases where the occupation of the wearer renders it necessary for health and comfort. The rage is all for button and laced shoes, though this winter the elastic side gaiter has enjoyed a new lease of life. The buckle gaiters are entirely out of date, and are no longer kept in stock by dealers. Cloth-top shoes are being slowly worked out of the trade, while cloth button boots for ladies are not at all worn. Weltd shoes are now worn with improved machinery, and," with a sigh, "custom work will soon become one of the lost arts.

"Rubbers are very poor this year, and wear out rapidly. This is due to the fact that manufacturers are buying up the old worn-out stock, remelting and moulding the second time. Gum which has been once fashioned into a shoe and worn in all sorts of weather, until the grit of the streets is ground into its very substance, lacks the toughness and purity of the gum fresh from the tree, and easily breaks under a slight strain.

"Your job is done, sir; sorry I couldn't give you a better character, but truth is truth, and I never flatter."

ANNUITIES.

IN the general meaning of the word, annuities are fixed sums of money paid yearly for a consideration, either for a term of years or in perpetuity. Under this definition interest on notes or bonds are annuities. The different kinds of annuities that may exist are so numerous we can not undertake to define them, but will confine ourselves to noticing such as are known as life annuities. In this country such are often established by a testator in his will, who desires to provide for parties of whose judgment or wisdom in the management of monetary affairs he

may have doubt. But more especially shall we call attention to such as are erected by the payment of moneys to an incorporated institution.

We will suppose that A., having a sufficiency of this world's goods, and knowing that riches often take to themselves wings, desires to secure an income that will be sufficient to meet his ordinary expenses in case all other resources fail. He at once pays into some incorporated company authorized to sell annuities, in whose soundness he has confidence, such a sum as they require, with an agreement

on their part to pay to him yearly, during his lifetime, a certain amount. It will be readily seen that many factors enter into the calculation of annuities. On the one hand, there is the amount of interest the company can obtain for the money paid in, and, on the other, there are the age and state of health of the depositor. In some respects the same questions arise as in life insurance, and tables have been constructed to facilitate the calculations.

We append a table from the "Dictionary of Commerce," showing what amount must be paid at different ages to insure the payment of one hundred dollars a year during the life of the payer, calculated on the basis of interest at 5 per cent.

25.....	\$1,512
30.....	1,453
35.....	1,385
40.....	1,307
45.....	1,216
50.....	1,112
55.....	995
60.....	866
65.....	732

Deferred annuities are such as commence a given number of years after the payment of the money, and continued during the life of the payer. These are purchased by those whose present income is more than they need, but who desire to prepare for possible adversity while they may.

Annuities on joint lives are sometimes purchased by husband and wife, payable until the death of the last surviving.

Annuities are less commonly purchased in this country than they would be had persons more confidence in the stability of the institutions selling them. Some of the European governments sell small annuities through their post-offices and savings banks.

The interest on the National debt of England may be properly called a perpetual annuity that may be transmitted from one generation to another so long as the Government exists, for there is small probability that the principal will ever be paid. This, however, does not serve the purpose contemplated by an-

nuities, as they are generally understood, in which it is expected that he of average life will receive back the amount he pays, with the accruing interest, less a fair amount as compensation for the corporation in keeping the accounts.

There are many classes in our country who could invest in a sound annuity company with advantage. Doubtless we all know people who are, for various reasons, unable to do much toward earning their own living, but who, fortunately, have sufficient property, the interest of which gives them a meagre support. They do not dare to draw on the capital, because that will lessen the annual interest, and they are really living in poverty while possessing wealth. Their capital, paid to an annuity company, would increase their yearly income and ensure them a continuance thereof during their lives, relieving them from the care of its management and the risk of losses by injudicious investment.

We have spoken of the want of confidence of our people in institutions that are authorized to sell annuities, but we see no reason why it should exist toward them more than toward any other investments; and our governments, both State and National, should take the utmost care to render deposits for annuities as nearly absolutely safe as possible.

L. A. R.

NOTES ON AMERICA.—It is said that, after a hard struggle, Lord Coleridge has decided *not* to write a book about America. In this he does not imitate the rank and file of his countrymen who visit America, and then put to service such small or great gifts at scribbling as they may possess, to write down or up the people and institutions of this country. We are reminded constantly of the saying of Byron, much more fitting now than in his generation: "Every fool describes in these bright days his wondrous journey to some foreign court, and spawns his quarto, and demands your praise."



EATING—ITS LAWS AND ERRORS.

PERSONS who have a vigorous appetite, and are not sufficiently informed in regard to hygienic law, are apt to eat heavily, especially during the fall and winter, and when the spring approaches it is considered that they need to exercise self-denial by way of fasting, as fasting is doubtless necessary to such persons. It is both a means of grace and of physical wisdom to do so. But the person who eats day by day under the light of physiology, using no more food than is necessary, and taking that of the right kind, does not need to fast any more than he has to breathe less air than formerly. When we over-feed horses and then push them to extreme effort they sometimes become dyspeptical, and we turn them out to grass for three months. In other words, we stop surfeiting them with food, stop exercising them unduly, and put them on simple diet, and they recover. But the horse that is properly driven, and fed judiciously, will work from January till June, and from June till January without losing a day or a meal, or a healthy appetite for it. Forty years ago, when the writer ate and drank as other people do, sometimes excessively and sometimes injudiciously in regard to the selection of food, he had trouble with sick headache, foul stomach, torpid liver, and all sorts of difficulties. But little by little getting into a better knowledge of the laws of hygiene and physiology he is able to

carry himself year after year without a moment's loss of appetite, and without any of the derangements consequent upon wrong modes of diet. Hence, he doesn't have to fast to atone for feasting.

One ought to refrain from taking an "extra piece," even though the appetite sometimes seems unsatisfied, and people often eat an "extra piece" with gusto because the appetite doesn't become satisfied in feeling, even when they have really eaten enough. Consequently an hour afterward they feel dull, and the whole system overloaded and feverish. Let the eater learn to deny himself, and quit while he is still hungry, and in half an hour he will feel that he has eaten enough. By doing this, and avoiding the wrong kinds of food, there is no necessity for fasting.

SUNDAY STUFFING.

This habit has grown to be common in our large cities, where men live at a distance from their business places, and therefore take a light lunch every day during the week. When Sunday comes, they have leisure for breakfast, and little exercise during the forenoon; then have a royal dinner at two o'clock, and perhaps lazy lounging and "lying off," as it is called, during the afternoon, they thus eat twice as much on Sunday as they do other days. The appetite is just as good as it would be if they were engaged in

their ordinary occupations, but the needs of the system are not half so great when a person is idle as when he is actively or laboriously engaged in business, and the result is that Monday is a blue day to very many. It is a day of headaches and ill-feeling, and by Wednesday perhaps they get back into their normal track again, and by Saturday are ready for another stuffing on Sunday.

We believe that dyspepsia in city men originates, in nine cases out of ten, in the practice of over-eating, and taking little exercise on Sunday.

LATE DINNERS.

Another evil connected with society life is late dinners, which seem to be necessitated by the fact that the men have only a moderate lunch at noon. They come home at five or six clock, and sit down to a heavy late dinner and gorge themselves with meat highly spiced, coffee, and perhaps wine, and then sit for an hour or two and smoke, and not one constitution in ten thousand can stand such a way of living. Many laboring men who work in the open air carry a dinner-pail with a lunch chiefly composed of baker's bread and coffee, and come home at night hungry as bears and fill themselves with fat pork or ham, and other heavy articles of food, drinking two or three cups of strong coffee, and then smoke a pipe for an hour or two. This method of living is very hard on the constitution. If they could have a more substantial dinner at midday, and eat material that is not so difficult of digestion at night, they would not break down and become old men so early as they do.

Some people have an idea that if a man is outdoors he can violate with impunity all hygienic laws in reference to eating; but this is far from being true.

RAPID EATING.

This habit is very injurious, for several reasons. If we eat that which requires to be masticated, like meat and vegetables, so as to divide the particles and

expose them to the gastric juice, or have opportunity to come in contact with it in the stomach, bolting food in large lumps is calculated to throw upon the stomach a great deal of extra work, retard digestion, and overwork the digestive organs. In the eating of starch-bearing articles, such as bread material, pease, beans, potatoes, etc., the mastication should be perfect, not for the sake of reducing the material to fineness only, but so as to combine it with the saliva in the mouth, which is an agent for changing the starch in the digestive process. If one were to drink down flour or meal mingled with water without mixing it with the saliva it would remain in the stomach undigested, and not until it passed from the stomach would it meet with that agent which is in some respects similar to saliva, and which is necessary for a change of the starch in the digestive process. Meat is dissolved by the gastric juice in the stomach, and does not so much need the saliva. Dyspeptics sometimes live on roasted wheat or dried crackers, and are obliged to masticate and salivate them thoroughly in the mouth before they can swallow them; whereas if the same material were taken in the form of a thin mush and swallowed hastily it would lie like lead in the stomach. On this material we do not use the teeth half enough. Usually people eat too rapidly to perfect the masticating processes according to the laws of nature. The hen swallows corn whole, but she has no teeth; it is soaked soft in the crop, and when it passes to the gizzard, which is a strong, muscular sack, it is ground by mixing with gravel-stones, thus triturating the food as teeth would. Squirrels, on the other hand, grind the corn fine in the mouth, as they have sharp teeth, and therefore do not need a gizzard filled with gravel-stones to serve as a mill. Let the rapid eater remember that he is organized to be a man, and therefore has no internal gristmill. He is not organized for a goose, to use a school-girl phrase. People often deserve the name of goose by eating too rapidly and carelessly, breaking down the health.

THE TEETH.

If there is anything in which people may deservedly take pride and pleasure it is a fine, even set of teeth. We are not one of those who believe that the teeth should be used up before a person sees his fortieth year. The teeth ought to last a lifetime. There are several reasons why the teeth become easily worn out or decayed: one is, that we cook our food to such an extent that the teeth are scarcely required for the purpose of mastication. We do not use our teeth enough to promote their health. If cows are put into the distillery stable and fed on the slops which come to them warm and soft, their teeth become diseased and drop out, showing that the teeth, in order to be healthy, must have use.

In the human mouth it is seen that if the teeth of one jaw become diseased and are removed, the corresponding teeth of the other jaw are apt to become unhealthy because they have nothing to do. We have seen many Indian skulls, and it is a singular fact that the teeth of those which are old are worn clear down to the roots sometimes, and it is rarely the case that a decayed tooth can be found in any of them. The Indians eat parched corn; they have dried meat, which is cut up into small strips and hung under the roof of the tent, and becomes as hard as raw-hide; this they eat raw as we eat dried beef, but, being as hard as sole leather, they have to use their teeth considerably to masticate it, and it gives them great exercise in reducing the dried meat to a pulp. But they get their remuneration in sound teeth, good digestion, and long life. There is no reason why, among civilized people, the teeth should become so early decayed. If they

did not eat so much sugar, and their counteracting acids as a sort of antidote, this would not be so. Sugar produces feverishness in the system, which is detrimental to the teeth and causes their decay, and those who eat too much sugar usually eat a great deal of vinegar. They enjoy pickles, and whatever is sour, and acid tends to destroy the enamel of the teeth. Some people rub vinegar on their teeth as a means of making them white and clean, and if this were continued any length of time it would ruin them.

It has been said that the use of tobacco preserves the teeth. We doubt the statement, so far as the nature of the tobacco is concerned, but it can not be disputed that the man who uses his teeth in this way, gives them a great deal more exercise than those who do not use it; besides he gets rid of the particles of food which may remain between the teeth, such as bread, which becomes sour in a short time, and creates an acid which is very injurious. The tobacco-user, therefore, gets rid of the particles of food that by remaining would injure the teeth, while those who do not use it are apt to permit them to remain in the mouth. In that way only do we think tobacco preserves the teeth. There is nothing in the tobacco itself which preserves the teeth; if one were to chew pine sticks as they do tobacco, the mouth would be cleansed from the particles of acid just as thoroughly and the teeth would receive the benefit of exercise, thereby promoting normal circulation. So the tobacco-user gets the benefit of the exercise, though he, like other people, may bolt his food; thus he gets one benefit from one of the filthiest habits which curse humanity.

NELSON SIZER.

WHY WE COUGH.

THE following remarks on the rationale of coughing from the *Journal of Chemistry* is quite appropriate to the season:

Everybody coughs sometimes, and,

judging by the quantity of patent cough medicines sold, many people must be coughing all the time. Most persons suppose that a cough is a cough the world over, and that what will cure one will

cure another; and so they prescribe for themselves and their friends all sorts of syrups, home-made or proprietary, with the consoling assertion that "it can't do any hurt, if it don't do any good." How do you know it can't do any hurt? Do you know its ingredients, and, if so, have you studied their effects upon the system in health and in disease? Do you know the condition of the patient you are prescribing this for—his constitution, his habits of life, his past history?

Let us see what a cough is. It is a sudden and forcible expulsion of the air from the lungs, preceded by a temporary closure of the windpipe to give additional impulse to the current of air. The effect of these spasmodic expirations is the removal of whatever may have accumulated in the air-tubes, whether a foreign body from without, as when a particle of food finds its way into the windpipe, or an accumulation of mucus secreted in the air-passages themselves.

Coughing is in part a voluntary act. We can cough whenever we wish to, but frequently we are compelled to cough when we don't wish to. Nerves are divided into two classes, sensory and motor nerves. The former carry intelligence to the brain; they report to headquarters any disturbance on the frontier. The motor nerves then carry back the commands of the general to act. You tickle a friend's ear with a straw, and his hand automatically proceeds to scratch the itching member. A tickling sensation is produced in the throat by any cause whatever; the brain

then sends back orders to the muscles concerned to act so as to expel the intruder, in other words, to cough. And that is how we cough.

The source of the impression may be various. Frequently it is due to an irritation of the respiratory organs by foreign bodies, dust, and acrid vapors, admitted with the air in health, or to damp, cold air itself, if the organs are particularly sensitive, or to the presence of mucus, pus, or blood, in disease. Inflammation, from whatever cause, acts as a source of uneasiness.

There are, as we all know, many different kinds of cough. Thus, we have the dry cough, without expectoration, and the moist cough, with expectoration. We have the short, hacking cough, resulting from slight irritation, and the violent, spasmodic, and convulsive cough, caused by a greater degree of irritation, or some peculiar modification thereof. Then there are the occasional, the incessant, and the paroxysmal cough, terms that explain themselves. Hoarse, wheezing, barking, and shrill coughs are due to the tension or capacity of the rim of the windpipe, or other portion of the tube. The hollow cough owes its peculiar sound to resonance in the enlarged tubes or the cavities in the lungs, if such exist. Sometimes the exciting cause of a cough lies not in the lungs and respiratory organs, but in the stomach, liver, or intestines. In other cases there seems to be no real cause; it is purely nervous or hysterical.

HOW TO SEE THE STOMACH.

AMONG the singular and useful instruments which the rapid evolution of electrical methods in connection with surgery has produced, is the Gastro-scope. The purpose of it, as implied by its name, is to show the condition of the stomach by illumination. A German observer, by the name of Leiter, invented an instrument of the kind, which was later improved, with the assistance of

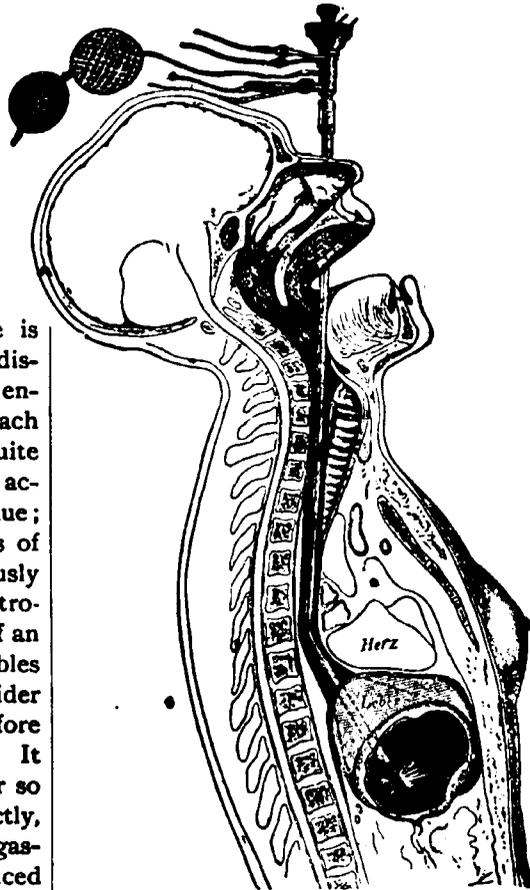
Mikulicz. A description is scarcely required, reference being made to the illustration. As a preparation for its use, it is necessary that the patient shall have eaten nothing for several hours; and, immediately before the examination, the stomach should be washed out. The patient is then laid upon a table, his left side up, the head properly supported, so that the neck shall be kept in its axial

position ; provision should also be made to catch the saliva from the mouth, which can not be swallowed. The head being thrown well back, the instrument, previously well lubricated with vaseline or glycerine, and guided by the finger of the left hand, is passed downward gently.

Experiment has shown that the gastroscope needs no special manipulation for its successful introduction into the stomach. When in place, the stomach is inflated to the desired extent, but not so much as to distress the patient ; then the pointer on the rheostat being turned slowly, the metal blind at the lower end of the tube is drawn, and a brilliant light at once discloses the field, and the physician is enabled to make a diagnosis of the stomach disease, which would otherwise be quite impossible. The Laryngoscope was an acquisition to medicine of very great value ; enabling a physician to treat diseases of the larynx and trachea which previously had baffled the best talent. The Gastroscope now comes in as an invention of an allied type, for the reason that it enables the eye of the physician to consider stomachic conditions, which heretofore were inaccessible to any of the senses. It does not, of course, reveal the interior so that one can see the stomach perfectly, but the effect of the light upon the gastric coats discloses to the experienced physician the characteristics of diseased conditions.

The instrument is provided with an optical system, and supplies a field of view in proportion, of course, to the advantages of the position of the tube ; as the instrument is rotated toward a given point of the mucous membrane, this field

is diminished ; as it is rotated away from that point, it is diminished, while the image is enlarged. In a certain relation the image is of natural size, that is to say, we see a certain part of the stomach



THE GASTROSCOPE.

of full size. The clearness of view is excellent ; and if the patient can tolerate the presence of the instrument, a very satisfactory examination can be made by one who is conversant with the topography of the stomach.

THE GROWTH OF BRAIN-POWER.

SO far, I have been tacitly but intentionally taking for granted the very principle which I set out to prove, in order fully to put the reader in possession of the required point of view. The question now arises, Where in the series of

events is there room for any fresh element to come in ? Can any man ever be anything other than what some of his ancestors have been before him ? And, if not, how is progress or mental improvement possible ? That men have, as

a matter of fact, risen from a lower to a higher intellectual position is patent. That some races have outstripped other races is equally clear. And that some individual men have surpassed their fellows of the same race and time is also obvious. How are we to account for these facts without admitting that new elements do at sundry times creep in by chance, in the false and unphilosophical sense of the word? How can we yet advance unless we admit that exceptional children may be born from time to time with brains of exceptional functional value, wholly uncaused by antecedents in any way?

The answer to this question is really one of the most important in the whole history of mankind. For on the solution of the apparent paradox thus propounded depend two or three most fundamental questions. It is by this means alone that we can account, first, for the existence of great races like the Greeks or the Jews. It is by this means alone that we can ac-

count, secondly, for genius in individuals. And it is by this means alone that we can account, thirdly, for the possibility of general progress in the race. It is surprising, therefore, that the question has so little engaged the attention of evolutionary psychologists at the present day. There are only two conceivable ways in which any increment of brain-power can ever have arisen in any individual. The one is the Darwinian way, by "spontaneous variation," that is to say, by variations due to minute physical circumstances affecting the individual in the germ. The other is the Spencerian way, by functional increment—that is to say, by the effect of increased use and constant exposure to varying circumstances during conscious life. I venture to think that the first way, if we look it clearly in the face, will be seen to be practically unthinkable: and that we have therefore no alternative but to accept the second.

GRANT ALLEN.

TRAVELLING IN FLORIDA.

"WHO travels, carries home with him," and "The idle works hard" (*i. e.*, to get through with doing nothing). These two proverbs are amply confirmed by the Northerners who come to Florida to enjoy our Italian winters. Travelling seems to be fun. But it isn't. You need only listen to all the growling customers who are on their way home. The very sand under their feet they grumble about, and they say they would not for anything in the world go to Florida again.

Poor Florida!

Only think of the way in which they try to enjoy it. They do not bother themselves much about the enjoyment the country might have in store for them, but care exclusively about the hotels, and in these hotels scarcely about anything else than the *menu* or the bill of fare. Travelling in Florida is for the most part hunting for a "good dinner," and the *Sanford Journal* blew the other day

for a hotel, by stating that one of its guests declared he had not eaten since he left Paris such a good dinner as the one served him there.

It is a fact, that Florida does not offer the tourist the grand sceneries of Southern Europe or Western America. Its low level land is monotonous and almost entirely without any of the dazzling pictures and grotesque configurations by which mountainous countries like Switzerland, Colorado, and California bewitch the eye of the spectator. But it offers in the very peculiarity of its seeming poverty charms which are not possessed by countries of far-renowned beauty, and the words which express this charm are *peace, rest!* Florida is not without its thunder-storms and heavy gales. But they are rare, and having passed over, leave nature again in her usual mood of utter calmness which seems then of so intense a regularity that nothing could ever interrupt it. And the very thunder-storms used to be milder in

this country than I have observed them anywhere else, and I have heard the thunder roll not only in the North, but in other sections and in Europe. A Florida thunder-storm bears very often a striking likeness to a thunder-storm in the theatre. You can observe in the west towering clouds, deep black in the centre, and rent in their whole length by incessant lightning, followed by frightful thunder, and in the east a sky clear from the horizon to the zenith, the moon shining calmly down from heaven, and presenting a picture of peace and calmness. And this may last on for hours, as if nature had gotten up the thunder-storm for no other purpose than the gratification of certain admirers.

Is not this a climate for the sick? and not alone for those whose lungs are suffering and require a mild air to restore their impaired respiratory powers, but for the immense host of "nervous" sufferers in our country. It is to these, however, by preference that we must address the admonition to follow up different plans of travelling in Florida than the one now observed by the mass of its visitors.

Most of those who come for their health to Florida must be possessed of a fair stock of robusticity, or they would not stand the strain on their nerves which the hunting for good, or rather for "the best" hotels, and the life in them involves.

The scenery of Florida, we admit, is monotonous. But it is not by far so monotonous as the life in a hotel, where you have nothing to do after breakfast but to wait for dinner, and after dinner nothing more than to try to muster up enough appetite to stand the supper, and where, what is worse, you do not see anything besides a crowd of people who spend their time in the same way. Nothing is being accomplished! there they sit looking at each other's faces, the ladies rocking, the gentlemen with their heels high up, and all wasting their time and their money till they can go home again, perhaps to brag that they spent a winter in Florida.

This is the way in which it is done.

But it is not the way in which a refreshing of soul and body by a winter resort in Florida can be brought about. Whoever goes to Florida really and earnestly for his health, ought not to hunt hotels, or allow himself to be hunted by them, as it is the custom, now, of course, because all those big hotels, which have sprung into life on account of the way in which the tourist of the 19th century does his travelling, want people to pay their expenses, and pretty high these expenses are, for January, February, and March must pay for the whole year. Those who go to Florida for their health, and also those who want to learn what the State is, should take up their abode in a country settlement, take private lodgings in the midst of a fruit and vegetable growing community.

A Florida winter resort ought to be without "mixed pickles." There are no mixed pickles in Nature here either, and if in the bustling, exciting life of the large cities they are considered necessary with so many other things our quaint grandmothers did without, to a sick person, and to any one who wants to improve his health by spending a winter in this wonderful climate, they are, to be sure, detrimental, a bland diet being all the more necessary, because nature here is bland and does not put your nerves on a strain, as those who like mixed pickles and a high-seasoned diet, claim to be the effect of the air of the Eastern and Western States north.

Singular contradiction to the authorities as to the hygiene of the North! It is contended that the cold in the North is "bracing," "vivifying." Hearing some far-Northerners declaim on this quality of their atmosphere, you would believe that red cheeks and robust bodies were without exception in the region favored with more days below than above the freezing point. Again, it is claimed that it is the North that needs the mixed pickles, and the catsup, and the pepper and—the brandy.

Well, here in Florida we do not need any of those things. Even in midsum-

mer our climate is not "enervating," and if you want to restore your lungs or your nerves, do not "carry your house with you," with all the habits you got sick by, but enjoy our country in its true

state. Florida is bland, like the Paradise was. Live accordingly, and you will feel like being in it.

C. A. F. LINDORME, PH.D., M.D.

Silver Lake, Fla.

WHY PEOPLE TAKE MEDICINE.

IN the *British Quarterly Review*, a prominent authority (Dr. Crofts) thus speaks on this point :

"It is to be feared that, to most people, medicine is not an erudite science, or a learned art, but is little more than the commonplace administration of physic. They can not understand medicine without drugs, and its virtue and power are popularly measured by the violence of its operations. Its very name is, in ordinary parlance, synonymous with physic. Take from it its pills and potions, and for them you take away its whole art and mystery. They do not believe in a scheme of treatment, however deep-laid and skilful, which does not include a certain statutory dosage; so that, as a rule, medical men are practically compelled to give their patients a visible object of faith in some form of physic, which may be at most designed to effect some very subordinate purpose. And it is remarkable how strongly, even among the educated classes, this feeling prevails. Cure by the administration of mixtures and boluses is so fixed and ancient a tradition, that it is only very slowly that the world will give it up. The anxiety of the friends of the patient wants to do more than follow the simple directions of 'nursing,' which have been so carefully inculcated, and possess, apparently, so little remedial powder. There is nothing of the unknown about them in which a fluttering hope of great advantage can nestle. Thus it is necessary to educate the world into a belief in medicine, apart from drugs, which finds its power of curing in adaptation of the common conditions of life and applications of physiological facts—a medicine which takes into its hands the whole life, and

orders and fashions its every detail with scientific definiteness. It is found in every-day practice that this popular misunderstanding of the modern spirit of medicine constantly checks the little tentative advances of a more scientific treatment, and it is necessary that it should be generally understood how powerfully the various processes of the economy may be affected by the manipulation of the conditions of common life."

This straightforward dealing with the subject has much encouragement for the hygienist, since it shows that on the side of the educated and unprejudiced physician, at least, the principles of hygiene are appreciated, and there is only lacking a better state of public sentiment to give powders, pills, and potions a free permit to "the Bay of Biscay."

SIMPLE CURE FOR COLD FEET.—The following remedy for cold feet is recommended by the *Fireman's Journal* for sedentary sufferers, as well as policemen, car-drivers, and others who are exposed to the cold: "All that is necessary is to stand erect and very gradually to lift one's self up upon the tips of the toes, so as to put all the tendons of the foot at full strain. This is not to hop or jump up and down, but simply to rise—the slower the better—upon tiptoe, and to remain standing on the point of the toes as long as possible, then gradually coming to the natural position. Repeat this several times, and, by the amount of work the tips of the toes are made to do in sustaining the body's weight, a sufficient and lively circulation is set up. A heavy pair of woollen stockings drawn over thin cotton ones is also a recommendation for keeping the feet warm."

NOTES IN SCIENCE AND AGRICULTURE.

A Mistaken Philosophy of Growth.—Professor Lionel Beale, in a lecture before the Victoria Institute, London, thus alluded to mistakes in scientific data made by philosophers who rely upon assumptions: "Herbert Spencer, strange as it may seem, affirms that crystals grow, and that non-crystalline masses of various kinds grow. He declares that the accumulation of carbon on the wick of an unsnuffed candle is an example of growth. . . . There will be found some of the very remarkable inferences upon which his system of evolution in part rests, and which may be clearly proved to be erroneous. Indeed, not a few of the assertions he makes may be answered by a direct contradiction with advantage to the cause of truth. Non-living things do not grow, as he affirms, while all living things and every form of living material does grow, although, he says, with respect to a living plant, that its increase is not growth. . . . The growth of the most minute particle of living matter is, as I have stated, a vital process, and is due to the operation of a force or power absolutely distinct from ordinary energy and from every form of force of non-living matter. Every kind of aggregation is absolutely distinct from growth, and does not involve the latter. Processes of aggregation may go on to all eternity without the occurrence of any change resembling or allied to that of growth. Growth, after all, is but one of several purely vital phenomena.

"It would be tedious were I to repeat the dictatorial utterances in argumentative form which have been published far and wide for the purpose of leading people to believe that a living thing was like a watch or a steam-engine or a hydraulic apparatus. Moreover, some of the comparisons have been voluntarily abandoned by their authors in favor of others even more absurd. Such tricks as calling a watch a creature and a man a machine are hardly likely to mislead even the most ignorant after they have withdrawn themselves from the bewitching influence of the persuasive eloquence of the materialist prophet, and have commenced to calmly think over his extraordinary utterances, in order to extract any meaning that may be hidden by the frothy metaphors of modern physico-vital conjecture.

"This, the dullest, the narrowest, the most superficial of all creeds—materialism, which includes some mixture of antitheism and theism of various forms and hues—has been half accepted by hundreds of persons during the last few years. I believe all materialistic doctrines, vary as they may in detail, will be found to agree in accepting as a truth—if, indeed, they are not actually based on it—the monstrous assumption that the living and the non-living are one, and that every living thing is just as much a machine as a watch or a windmill or a hydraulic apparatus. . . .

Professor Huxley has been continually propounding and putting forward conjectural utterances of the kind during the last twenty years, and it is surely now time that something more substantial should be brought forward in support of the dogmas than conjectural chains of causation. . . . Between purely vital and purely physical actions not the faintest analogy has been shown to exist. . . . Within a very few years the hypothesis of molecular machinery will probably be forgotten, and the operation of vital power, as distinct from any ordinary force of matter, will be generally admitted and taught. . . . Look at it how you may, you will not discover the smallest speck of firm ground of truth upon which to build any form of the materialistic doctrine."

A Village Garden.—A correspondent of the *Prairie Farmer* gives some timely suggestions on home gardening that we consider worth a reading at this season:

"Lately on a visit to a friend in a beautiful prairie city, I found him residing in a well-built and excellently constructed house, with good stable and out-houses, and about two acres of land well situated. About half of the area adjoining the street was devoted to lawn; this was well planted with a few evergreens and shrubbery, and altogether presented a neat and inviting appearance. The remaining portion he usually devoted to corn and potatoes, with a few garden vegetables, and a few—very few—small fruits. Like a great many owners of city and village lots, he had not become particularly interested in these or familiarized himself with their culture: and thus, in my view, was depriving himself and family of the richest, best, and most healthful of human food. I mention this case as one of thousands of similar ones in our Prairie State, and everywhere over the land, and offer some thoughts in relation thereto—hoping to benefit at least some of my readers. *First*: It will not pay to raise corn on land worth three or four hundred, or even one hundred dollars per acre—especially in small city or village tracts. The ground had better lie in lawn, and the amount of corn purchased in the market. *Second*: The acre of land could be so planted and occupied with small fruits as to pay a fair interest on its money value. It would hold—

Twenty rods of strawberries, yielding according to culture and management, one-half to one bushel and a half per rod.

Twenty rods of raspberries, yielding 10 to 15 bushels.

Twenty rods of blackberries, yielding as many; or these, if objected to, may be omitted.

Forty rods of grapes, yielding 1,000 to 1,500 pounds.

Ten rods of gooseberries and currants, yielding more or less, according to management.

Leaving fifty to sixty rods on which may be grown all the early potatoes, tomatoes, sweet corn, beans, pease, and other kitchen vegetables needed for the family—not counting space

for a few peach, pear, and cherry trees. Contrast the above with fifty bushels of corn the acre will produce and see the result. The latter will be devoted to feeding the pig—which at last may die of cholera, or if killed and eaten may kill the consumer with trichinosis; while the former will go to the table rich, health-restoring, brain-clearing articles of food, greedily devoured by all. And all this can be done as easily (though not so cheaply) as growing the corn. The main requisites are, determination, energy, and study."

Modern Engineering.—The new harbor of Trieste, which has lately been finished with great ceremony, is a remarkable piece of modern engineering. It has taken fifteen years' work, and has cost over \$7,000,000. It consists of nearly two miles of quays, arranged to inclose three basins of eighty-five acres of water surface, and these are protected by a 3,600 feet long sea-wall, running parallel with the shore and 1,000 feet from it. The work has been one of enormous difficulties, because of the unstable bottom, and it is stated that the walls, when once under way, sank gradually for a year, then suddenly slipped forward and out of sight. But the present walls have already withstood two of the greatest gales known in this century. The importance of this work to Austria must be very great. It is the chief seaport of the country, it has a large mercantile navy, and its exports foot up \$50,000,000 a year, and its imports \$70,000,000. But its little harbor, constructed by Maria Theresa in the last century, has been entirely inadequate to its steadily-growing commerce. No vessels of more than three hundred tons burden could come to its quays, and though larger craft could find generally safe anchorage in the outer roadstead, they have been exposed to danger from southerly storms. The new piers now make it possible for vessels of any size to find safe shelter in the harbor of Trieste.

"Charlatan."—The origin of the word "charlatan" is given by a German paper as follows: "In the olden time, when the doctors, sitting in their studies, weighed the ills of their fellow-man and searched the depths of nature for remedies, they were not in the habit of riding about; their homes were hospitals, and they did not leave their patients. At that time a genius of a doctor, who knew more about calculating for himself than medicine, made his appearance in Paris. His name was Latan. He procured a small, one-horse wagon (*char*), upon which he packed his remedies for all possible affections. With those he drove through the streets of Paris, crying out his wares and looking for patients. He was the first driving doctor, and soon became renowned. Whenever he came along the population greeted him with, 'Voilà le char de Latan.' This was soon abbreviated to 'Charlatan,' which at that time denoted a driving doctor."

The Function of Bacteria.—After a couple of years of cultivation and growth of bacteria, using about one hundred homœopathic vials, with various animal and vegetable infusions as commonly made, it appears that in all cases the material wrought upon is never left alone till it is fully decomposed as an organic substance and resolved back into its simple constituents.

Although many kinds of bacteria in many cases assisted each other in the work of disorganization, yet the main work was done by the *B. termo*, which greatly outnumbered, overpowered, and destroyed all before it, including other dead, unencysted bacteria, or even its own dead. Could an average proportion of bacteria, bacilli, micrococci, and spirilli be made, it would stand about as 90:10:10:5; yet these varied very greatly in vegetable infusions, some forms appearing only transiently, and of the first named ninety-nine hundredths were *B. termo*. Some infusions were longer in being changed, as circumstances were more or less favorable; but in all cases, when the work of decomposition was fully finished, only an impalpable gray powder or sediment remained, with a beautifully clear and apparently pure liquid above.

How this beautifully clear liquid could be obtained from such a putrid mass is a mystery, and, strange to say, both sediment and liquid were free from smell, although some of the vials had been kept tightly corked, except to be examined occasionally. This fragmentary experiment goes to show that these organisms properly hold their sphere between the living and the dead, to prepare new material out of the old for the immediate demands of new and subsequent organic life.

Grease and Fat Butter.—It must be cheerful to lovers of butter to read the results of State investigation into the butter business. The committee found that out of thirty specimens of butter sold by as many grocers of good reputation analysis showed that only ten were composed of real butter; all the rest were chiefly made of lard. The price charged for the grease-butter was about twenty-five cents per pound—the real butter selling for about the same. Dr. Love, the chemist who analyzed it, testified that he could not distinguish the spurious butter from the genuine so as to swear to it, by its outward appearance, but he had no doubt of the accuracy of his chemical analysis. He said that in the manufacture of butterine and oleomargarine no chemical change takes place, but simply a mechanical mixture, and that all the substances used in the mixture have the same properties after the mixture as before, so that the lard, fat, and oils used in the bogus butter are no more injurious to health in the bogus butter than out of it. He had found no traces of nitric acid in his analysis, and would have noticed it if it had been present. He was of opinion that impure substances could be deodorized, so that they could not be distinguished. Even dead ani-

mals could be so deodorized, but if disease germs were not destroyed they would prove deleterious to health. He knew of nothing in the process of manufacture of bogus butter that would be likely to kill disease germs. He could not say that he knew of an authentic case of injury to health by eating the imitation butter.

The Wonderful Northwest.—We recently met a young and intelligent farmer named V. S. Wisner, formerly of Orange County, N. Y., now residing at Grand Lake, Dakota, and after a conversation of half an hour we requested him to prepare a statement on the subject of Dakota, its facilities and prospects, for use in the *JOURNAL*. He said he was preparing such a sketch as we wanted for a local paper near his old home, which we could make the basis of a statement for the *JOURNAL*. Subsequently he sent us the statement, which has been slightly condensed:

"From statistics before me I find the Territory of Dakota has an area of 153,000 square miles. That portion lying north of the 46th parallel, for which a separate territorial government is asked, has an area of 75,000 square miles. This latter portion is larger than the whole of New England and nearly twice as large as New York. In June, 1880, there were but two National and five private banks in North Dakota. Now there are eighteen National and twenty-four private banks. In June, 1880, there were but nine churches; now there are eighty-four. Then but seventeen school buildings; now 327 public and thirteen private. Then there were one daily and ten weekly newspapers; now there are fourteen dailies, forty weeklies, and six monthlies. Then there were 260 miles of railroad in operation; now there are over 1,000 miles. Then but 100,000 acres under cultivation; now over 1,000,000 acres. The value of last year's wheat crop alone will exceed \$15,000,000. This is a remarkable showing for a country destitute of settlement even as late as 1873.

"The soil is a rich black loam averaging about eighteen inches in depth, with a heavy clay subsoil. The soil and climate are peculiarly adapted to grain of all kinds. An Eastern grain sown there for several years will soon partake of the hardness peculiar to the grain of the country. The prairies of the Red River Valley are without stone, and a furrow may be turned for many miles without an obstruction to the plow. No fertilizers are needed, as the productiveness of the soil is renewed year after year by plowing a little deeper. Last year a piece of land that had been cropped for nine successive years yielded an average of twenty-two bushels per acre.

"It may, however, be profitable to adopt a system of summer fallowing in after years. For the present we are satisfied. We can easily raise from twenty-five to thirty bushels of No. 1 hard wheat—the finest grade known—per acre. It costs about ten bushels per

acre to produce it; and when they use the very latest improved machinery, thus requiring very little manual labor, they may produce it for eight bushels per acre. The margin of profit is large in either case, and is generally satisfactory.

"It is a fact, to-day, that men can go from the East, purchase farms partly improved, and with a large acreage for crop, and pay for the entire farm from one crop—realizing one hundred per cent. for their money in eight months' time. This explains why we can pay ten and twelve per cent. interest, the common and legal rate in that Territory. It will require some self-denial, some privations, some hard work, but with good habits one is sure to win in the end. After all, what are these privations, self-denials, and hard work but a simple repeating (to a less extent) what our fathers and grandfathers experienced in the East during their early life. They, as a general thing, are now reaping the benefits of their early struggles.

"In 1853 the first railroad entered Chicago from the East. All west of Chicago at that time was but a howling wilderness. North Dakota at that time was known as the 'Great American Desert.' Even within fifteen years the lands of North Dakota, which are now regarded as among the richest on earth, were condemned as unfit for cultivation. The pure waters were denounced as being alkaline and useless, and the climate was advertised as terrible and unbearable. Thirty years have passed since then,—thirty years of continued and rapid progress. Think of the vast wealth west of Chicago to-day compared with thirty years ago. Is there any reason why this rapid progress and prosperity should not continue throughout the northwest? Can we, dare we, look forward thirty years and estimate what the Red River country will become?"

A New Feature in Printing Art.—

A discovery has been announced of a new process which, it is said, will permit of any number of copies to be taken of a book without setting a line of type. A compound has been discovered which may be spread upon a page without in the slightest way injuring the paper. It can be easily removed to a stone, and there becomes the matrix for a stereotype, or can be used for printing from at once. Old books can be reproduced in exact facsimile, letter for letter, and broken stop for broken stop. The antiquarian will thirst for the blood of this too clever inventor; but practical printers are already moving to see whether they can not save the cost of resetting old editions, and if certain practical difficulties are got over we shall see a change not only in the production of fac-similes of old books, but in the reproduction of modern books. It will no longer be necessary to keep type standing. A proof will be as good as a stereotyped plate. It will be nearly as cheap to reproduce a volume as to print an extra copy of a volume passing through the printing machine.



FOWLER & WELLS Co., *Publishers.*
H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK,
MAY, 1884.

A PROPER CONSERVATISM.

HE who would modify old views on any subject must not rashly attack them, even though he possess new light, and is sure that he can improve upon what the world has accepted. The conservative element is specially strong in scientific fields, and quick to detect any weakness or incongruity in a reformer's logic, while very slow to perceive the essential good in his own propositions. This is as true in phrenological science as in other departments of thoughtful investigation. The phrenologists have fought hard for recognition, and gained it step by step. Like a well-conducted attack upon a strongly intrenched enemy, where line after line of defences is carried only after stubborn contest, the phrenological system has won its way against conservatism, prejudice, ridicule, and contumacious opposition, and now the followers of Spurzheim, appreciative of the cost of success, look with wary and almost mistrustful eye upon "new ideas" and suggestions of reform and improvement in their system of philosophy and practice. Not that they do not comprehend the fact of there being room for im-

provement, or that they do not desire more light, fresh data, and clearer illustrations of the principles they hold, but because they, like scientists in other spheres, have found that very few of the suggestions made by would-be discoverers can stand the test of rigid analysis.

Men study phrenology, become enthusiastic in its application, make what they think are original experiments, obtain results that seem out of keeping with what they have learned from the few books which they have read or the few lectures they have attended, then after a brief period they propose a modification in the function of this or that organ, or a transposition in the accepted scheme of classification, or they would alter the nomenclature. They are serious in thinking that they have reached important conclusions, whereas they have for the most part only repeated the experience of others who, years before their time, were active followers of the eminent German teacher, and had they been conversant with the extensive literature of phrenology they would have been saved the trouble of formulating their "new" discoveries.

The science of to-day has become so elaborate that a thorough understanding of the various applications of simple, primary principles is no easy matter, and the rapid accumulation of data has compelled the subdivision of departments into branches, from which a student may choose what shall be his specialty. Careful, conservative work requires this, and the best results have been obtained in physics by this method.

There is a world of detail in mental science, but every well-ascertained fact has a reflection back upon the principles of organization and the procedure of function,

and either confirms or modifies what is held as fundamental. An observer may deem himself warranted in changing, in a minor respect as it may seem, the function of an organ, and correspondingly its facultative definition, but he may not perceive that he has infringed upon the province of some other organ, and that to preserve the harmonious order of the system he must review the working of that and demonstrate that it is erroneously assigned a duty that does not belong to it. It may be thought, for instance, by a student that he has discovered a phase of influence exercised by Approbativeness that, to his mind at least, explains phenomena that were not previously understood, but another and more careful observer may point out how the student has imputed to Approbation what properly belongs to Veneration, or Cautiousness, or Friendship. So, too, in the matter of classification, it may appear to one who has thought much on the subject that he can correct certain cross relations, and make the triple division more distinct and rational by transferring an organ hitherto placed among the sentiments to the propensities, but a close look into the matter by a rigid analyst discloses the fact that this proceeding would prove a serious loss to the sentiments and introduce among the propensities an element of disorder. Those giants of classification and analysis, Spurzheim and Combe, disagreed regarding the function of the organ above Parental Love, the one styling it Inhabitiveness, the other Concentrativeness. Dr. Spurzheim's Love of Home, or disposition to remain in one place, Mr. Combe asserted was not inconsistent with concentration of mind. "Men and animals whose faculties are more concentrated have the greatest in-

clination to remain in one place." Dr. Spurzheim replied that "persons with concentrated powers may remain in one place, if it be necessary to do so, in order to gratify the continued activity of their powers, whilst the local situation has not the least influence on their mental determination, nay, whilst they may feel an aversion to the place itself." He also claimed that all strong organs in activity, especially Firmness, possessed the power allotted by Mr. Combe to Concentrativeness, and that temperament had much to do with the tenacity of impressions and persistence of thought. "Those who have individuality, eventuality, comparison, and language in an eminent degree," he says, "will always attract the attention of their hearers and readers, and their intellectual continuity and concentration will increase, by causality, mirthfulness, courage, cautiousness, love of approbation, self-esteem, and firmness."

Later observers have sought to adjust this difference of opinion by setting off two organs, one for Inhabitiveness, in the space between Self-esteem and Parental Love, but the editor for himself is not satisfied with the reasoning of those who advocate the organ of Combe, and observations made since the publication of "Brain and Mind" have rather helped to confirm him in the impression that Spurzheim had the better of the argument.

"In agitation of thought there is safety." Discussion, suggestion, inquiry indicate life and interest. We are gratified by the disposition of phrenological observers to consider and criticise every attempt to promote the application of phrenological methods. Phrenology has reached that vantage ground of truth and usefulness that may properly inspire

feelings of pride and self-congratulation in its advocates, yet, at the same time, it should inspire caution, lest its truths and principles should be warped and impaired in their application by careless or over-zealous treatment.

THE CINCINNATI EMEUTE.

ONE would have thought that the recent flood had cooled the blood of Cincinnati's population, and rendered the recent display of passionate excess impossible. But no; when the lower nature becomes preternaturally excited, and its violence is stimulated by an environment of influences in which lawlessness, disorder, and fanaticism dominate, there are no bounds to its destructive career. Only rigid, cruel discipline can check its progress. What a horrible spectacle of the tendencies of uncontrolled sentiment is presented to the American public by that Cincinnati mob! We will not discuss what might have been done by the civil and military authorities to suppress the outbreak at its beginning,—that has been the topic of a hundred editorials in as many newspapers; but would merely point to the fact that the trouble had its origin in a sense of injustice done to the community by a loose and degraded administration of the criminal courts. The immediate pretext for the outbreak was found in a comparatively light sentence passed upon a murderer, and a few determined men assembled at the prison door demanding the surrender of the criminal for execution at their hands. But when people move against the lawfully constituted institutions of a community, however well-ordered may be their design at first, it needs but little, very little, to change

their purpose, and to convert them into a raging, tumultuous mob, ready, at the bidding of some demoniac leader, to ravage and destroy. And when the violence of passion has spent itself, and a sober intelligence reviews the dreadful consequences, the sorrowful verdict is: How foolish we have been! We have lost much and gained nothing.

We are told that the masses—by which term are included the working classes, intelligent and uneducated, and the unemployed, idle, and shiftless—control the "balance of power" in politics. If so, then the men who compose the mobs that are found doing violence against the established order of society from time to time, are largely responsible for the state of things to which they oppose their brutal arguments. Corrupt men who pervert the principles of justice and travesty the laws are placed in authority by them, and are their representatives. They suffer themselves to be as plastic clay in the hands of the bosses and demagogues who run the machine of politics. The riot in Pittsburg and that in Cincinnati may differ in the principle of origin, but in both cases the outbreak was a passionate protest of a body of men against the natural consequences of their own acts as citizens. Will not the American public be taught by these bloody and costly lessons that the regulation of civil affairs must be given to clean, competent, unselfish, high-minded men, if the ends of justice are to be subserved, and the private rights of high and low, rich and poor, respected?

A PHRENOLOGICAL SIGHT-SEER.

IN a "Memorial of George Bradburn," published last year, we have a very interesting collection of reminiscences

from the life of a very clever Massachusetts man. He was sent to London on a mission in 1840, and had good opportunities while across the water to meet and talk with eminent people. Perhaps the most important part of the volume is the European diary it contains. In this he notes a visit to Edinburgh, and among his pen pictures of the Scottish metropolis occurs the following paragraph :

"I visited an assembly of three hundred divines, more or fewer, now in town (Edinburgh), where the matter 'was up' of the Church's independence. I asked Dunlop to let me try if I could identify Dr. Chalmers in this great crowd of persons: I succeeded, and by my phrenology alone; for apart from the reverend doctor's cerebral configuration there was nothing peculiar in his person corresponding to any preconception of mine. He has the look of a brawny yeoman. I heard him speak at some length in the debate, or tried to, rather, for I was at too great a distance to understand much that he said, and probably was but poorly compensated by reading a report of his speech in the morning papers. His manner was earnest and ungainly. He held his cane in one hand, clutching it near midway and cutting the air with it, in outrageous violation of *Hamlet's* advice, the perspiration standing in big drops on that noble forehead and embrowned face. George Combe has modified my opinion of the merits of this church battle, and quite destroyed the sympathy I had felt for these clerical warriors against secular interference with the rights of churches, by showing that the special object of their hostility is, under the circumstances, favorable to the growth of religious liberality."

THE NEW "COMPANY."

IT has been announced through our business departments that the individual relation of Fowler & Wells has passed into a Company relation, with the resultant distribution of interest that usually follows such a change. The Fowler & Wells Company, organized as it has been, in accordance with the laws of the State of New York, now may appear to the public to have entered upon a wider sphere of activity as a concern whose purpose is the publishing of books and periodical literature of a reformatory and instructive class. But the purpose entertained in the beginning, when the brothers Fowler commenced business on Nassau Street, New York, forty-eight years ago, was a wide one, since it had special reference to the function of mind and the laws of health. At that time the establishment of a business for the express purpose of teaching the principles governing mental and physical development was a novel enterprise, and the wise ones in the business world, when they heard of it, shook their heads in doubt of its success and perpetuity. It was, in fact, a venture born of conviction and earnest resolve; conviction that there was no knowledge more needed by the American people than that to be supplied by a dissemination of phrenological principles; earnest resolve on the part of those early American disciples of Combe that they would devote themselves to the new work, be its missionaries, and stand or fall by its reception.

The purpose then formulated has never been deviated from. The changes in management necessarily incidental to so long a career may have introduced differ-

ent methods of working so as to secure more efficient results, but the premier motive has always been to instruct the people about themselves, to inspire aspirations in the young for self-improvement, to point the way toward a better manhood and womanhood.

Ideas that the Fowlers and Wells were first to avow publicly were in time caught up by other eminent spirits, and, in the course of thirty years, a multitude of teachers had been brought out who, under one name or another, were found teaching and lecturing in the land on the principles and practice of moral and intellectual education, hygiene, physiology, social reform, temperance, etc. It was the phrenologist who gave the impulse and cue to such work; his success demonstrated the possibilities in other or related fields of philanthropic activity. Even one who had long been known as an opponent to the doctrine of localized brain centres, the "Autocrat of the Breakfast-table," said of the phrenological teachers not long ago, that "the world owed them *an immense debt*," that phrenology "has melted the world's conscience in its crucible and cast it in a new mould, with features less like Moloch and more like those of humanity."

In succeeding to the business, mission, and prestige of Fowler & Wells, the new Company does not signalize any important changes in policy. Efforts will be made to widen the sphere of its activity and influence for the purpose mainly of responding to demands long existing. From the Pacific Coast, Canada, South America, Japan, Australia, India, Egypt, Germany, France, Great Britain, Scandinavia, there come demands for its healthful literature and special teaching, to which prompt responses should be made; and it is hoped

that the united zeal and industry of its professional and business associates will be enabled to make the responses in a satisfactory manner.

The sympathy and co-operation of the subscriber and reader of the PHRENOLOGICAL JOURNAL are asked in the promotion of this work. As heretofore this magazine shall be the medium of current communication with the world, the medium through which the public may obtain information concerning our movements, what we are doing and what we have to offer for the consideration of those interested at present and those to be interested in the circulation of knowledge most useful in this practical era.

As a Company we expect from our friends generous congratulations—they have largely indicated satisfaction with the step taken already; from the business world there have come assurances of confidence which are most encouraging. Our basis is firm, our credit secure, our duty plain, our work noble, our way clear; may we not anticipate the hearty support of the public, and count upon success in our operations, especially as success with the Fowler & Wells Company means moral, intellectual, and physical good to the community?

THE true idea of education, that it is a process of bringing into exercise and developing the faculties of the mind, was, according to Plato, entertained by Socrates, who is reported by the former as saying: "Some of those who converse with me appear at first absolutely dull, yet afterward, as our acquaintance ripens, if God is gracious to them they all make astonishing progress. There is clear proof that they have never learned anything of me, but they have acquired and discovered many noble things of themselves."

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a small hand, or in pencil, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE CONTRIBUTIONS unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal matters will be considered by the Editor if this is done.

PHONOGRAPHY AT FORTY.—E.—Yes, if you have health, industry, a fair education, and write a good longhand, we see no reason why you may not learn shorthand, and make it serviceable for your support. We know several instances of ladies of forty acquiring the art and practicing it successfully. They who say you are too old, must have little or no practical knowledge on the subject.

ALCOHOL IN LACTATION.—J. A. J.—The idea that a mother should drink alcoholic beverages for the sake of her own strength and that of her child, is pretty well exploded. Authorities are convinced that the effects of such a practice are injurious. Some observers go to the length of declaring facts sustain the view that a taste for liquor is impressed upon the growing mind, which, at a later time, may develop into habitual drunkenness because the alcoholic taint had entered into its organism, and so its habits were warped in the outset of their formation. Alcohol is a poison, and that is a sufficient reason for its disuse at any time.

CARELESS CRITICISM.—J. S. R. and others.—The clipping which you have sent to us is

no doubt based upon an actual statement. We think that we know the man who uttered it, and are warranted in saying that, aside from his very moderate scientific information with respect to the subject he treats so lightly, he entertains anything but agreeable feelings toward the phrenologist to whom reference is made. If we are right in our surmises, the man acted as a business agent for the lecturer, and subsequently lost the place, which was a lucrative one. It is easy for a man to quibble and carp about another's ways in any professional capacity, especially when he is unfavorably disposed toward that other.

CONTIGUITY OF EYES.—A. H.—When eyes are close together, the indication is that the perceptive faculties on the median line are but moderate in development, and, therefore, their indications are but moderate. When the eyes are widely separated, however, those organs are large, and we should expect to find one so constituted active, prompt in observation, inquisitive, with fair judgment of forms and sizes and proportions, and also possessed of a good memory of the qualities of physical things.

ANIMAL AND HUMAN ORGANS.—B. F.—We must refer you to the good treatises on Phrenology for a discussion of the subject; it can not be thoroughly treated in the brief space of time allotted to an answer here. The question is a complex one, and a categorical answer can scarcely be made.

ORGAN OF SELF-ESTEEM.—G. W. P.—The situation of the organ of Self-esteem, as you will observe by reference to the phrenological bust, is adjacent to and back of Firmness; when its development is large, that part of the head is elevated and rather sharp in outline, the head falling off rapidly backward from it; when it is moderately developed, it gives an inclined contour to the head back of Firmness. The organ is properly a part of the coronal region.

COMPARATIVE AGE OF WIFE.—X. Y. Z.—For a man of thirty, we should say that the lady he would espouse should be from twenty-five to thirty. As a rule, we think that there should be no greater difference than five years between the ages of husband and wife; we are not stringent on this subject, however, as we entertain no serious objection to the wife being older than the husband if the parties are well agreed. We have known very happy marriages where the wife was older by several years. A rational view of the subject is, that there should be no great difference.

HEREDITY IN PHRENOLOGY.—*Question*: Does not Phrenology teach that a man is governed entirely by inherited faculties and association?

Answer: Certainly; a man obtains his organization from his parents; education and association may vary the inheritance, and elevate or depress the tone of the organism. It must be understood, however, that one may inherit special characteristics in increased strength, and so show a disposition or character apparently different from his parents; but the type of organism, on analysis, is clearly seen to be derivative.

ANIMAL MAGNETISM.—The work entitled "Library of Mesmerism," etc., contains practical instructions with regard to the production of the trance-state, and other phenomena relating to hypnotism; but the work by Deleuze is much more complete in its special application to the subject. Price of the first, \$4.00; of the second, \$2.00.

PHRENOLOGICAL INSTITUTE.—A. M. C.—The charges for instruction in the Phrenological Institute course are for the whole term; we can not very well make a difference to suit those who desire to attend but a portion of the course, if the applicant expects to enjoy the same privileges as a full-course student. So says the Secretary.

QUALITY.—*Question*: Is not quality of vital importance to be considered in reading character? And why is it so often ignored in the delineations of character in the JOURNAL? E. H. S.

Answer: We don't know how long you have been a reader of the JOURNAL, and your question has led us to turn over the numbers for the year 1883, and we find in the descriptions of portraits in every month but August and September, distinct allusion made to quality of organization. Sometimes it is called quality, and described as such; sometimes the conditions which go to make up quality are mentioned, and sometimes the results of fine quality are brought out. We thank you for asking the question. We have had persons ask why we did not mention every organ by name in giving a description of character, and the person asking the question thought he had made a good point. When we say one has strong perception, it may include all the perceptive organs. When we say strong moral power, we don't need to say Veneration, Conscientiousness, Benevolence. When we say social power, it is not needful that we enumerate each of the organs; and when we say mechanical ability, it is not necessary to speak of Form, Size, Weight, Order, and Constructiveness. When we speak of artistic taste or poetical ability, we don't need to name the organs involved, unless we are speaking to a pupil who is supposed to be learning the primary principles.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

REMARKS ON "A Revised Classification," in the PHRENOLOGICAL JOURNAL, March, 1884, page 145:—

All intelligent men* who are familiar with a subject have the right to "object" and to "offer amendments" and changes, but they must not do this without good reason; and if they have a good reason, they must express it so as to be plainly understood by the other intelligent people to whom they appeal.

The outside world, who know nothing of Phrenology, have various terms—such as "stories," "level," "thick," "clear," "flat," "long," etc., which they apply in a descriptive way to certain people. Not only in Phrenology do we see such terms used, but every branch of science and art is referred to in this manner.

The *smart* outside world is always ready to invent some apt phrases to serve them in description, and such loose terms sound well enough when coming from them. We know what they mean—that they speak figuratively, and not in a literal sense. In a phrenological sense some of these terms may apply and some of them not.

Such terms always precede the scientific ones, and when the science of the subject is advanced, the inquiring mind often begins to ask itself whether or not there is a connecting link between these common terms and the true science of the subject. Sometimes there is and sometimes not.

In this connection take "stories." How natural it is for the outside world to associate a high, moral, and good man with some lofty building with many stories. The ancients used to speak of Heaven after this manner. But when the word "level" is thus used, we know that it is intended to indicate a clear, well-balanced mind, that almost always does the right thing at the right time, and is always under good control. From a phrenological standpoint the "flat head" is not a good outline; we like to see at least a little rise in the crown of the head—we don't like a flat head. The individual may be intelligent, but not well-developed or well-balanced.

Now the thought arises, was not Mr. Hurley thinking of "stories"? The "three-story head" being quite a common phrase, did not his mind run in this groove, or did he not become infatuated with

* MEN, used in its broadest sense—to include women; and, by the way, we much need a new general term that will include both sexes, so that it will not be necessary for us to stop to explain every time, lest we be thought discourteous.

"stories," as applied to the head, and therefrom evolve the idea of applying it literally?

He divides the head in profile in three strata, from front to back. The first stratum, from the lower part of the forehead, including the "perceptives," to the back-head, or the whole base of the skull, he calls "physical"; the second stratum, the "intellectual"; the top-head, or third stratum, the "moral."

In the standard system, the head is divided on the principle of contrast with the lower animals. The founders of the science saw that animals, as well as the human family, had brains inclosed in a skull, and that the highest and lowest had certain parts in common; and the higher the order, the more the front and upper regions were developed, and the greater the relative size of the brain in comparison with the body. They therefore, in man, placed the indications of the higher qualities in those regions which were deficient in the animal; where man was the most unlike the animal, there they placed those powers that we term "intellectual" and "moral" in the front and upper head. The parts that were in common with the animal, and made the animal-man, they placed in the animal region—in the lower and back head. And we think they were right, and that the light and knowledge gained in succeeding years proves the wisdom of their location. Why should we now go contrary to this, and place the intellectual region in a stratum from front to back, taking in that which makes the "intellectual" in man, and what is in common with him and the animal; why join the animal region to the intellectual, and stamp it as a whole "intellectual"? With our present light it seems a queer hitching together of forces, and we can only account for it on the principle of trying to make these idle terms of the outside world to harmonize, or perhaps better, be the key-note of our own peculiar, beautiful, and natural system.

The rest of the classification is not, as a whole, unlike the standard laid down by the wise ones in this department of science, and faithfully taught by the PHRENOLOGICAL JOURNAL; yet there are a few details I would like to comment upon.

First, unless for some peculiar advantage to be derived, there is nothing gained in giving new names to old, well-established things. Mr. H. uses "Secretiveness" synonymously with "Self-control." In a detail sense this might apply, but not in a general sense. "Cautiousness" in the same sense might be classed under this head. There is only one organ in the human head which, from its action, may be thus named and classified, and that is "Self-esteem," as this organ, more than any other, gives that control and ready use of the faculties which we see so conspicuously in people remarkable for their prompt action and steady hand.

The article, as a whole, however, shows perception and thought; and though we may not indorse it or agree with the author, we can respectfully consider what he has to offer. This is our duty, and,

for one, I am glad that the editor of the PHRENOLOGICAL JOURNAL was generous enough to allow him the opportunity to set forth his views in his own manner.

L. P. NOYES.

Washington, D. C.

CHess AND PATIENCE.—Dr. Franklin, in his essay on "The Morals of the Game of Chess," mentions firmness, caution, and imitation among the principal benefits to be derived by a practice of this game. Firmness indicates the virtue of being patient in one sense, for no enterprise can be undertaken without having resolution to begin it, and patience to carry it through. To imitate an art it is essential to exercise patience to be instructed; and when the art is mastered, patience paves the road to good success. Caution is always associated with patience.

Great men, as a class, possess patience, for it is a powerful help to successful achievement. We have noticed that great men who play chess have more of this mental quality than those that are ignorant of the game. Regarding this statement there might be some controversy; but if the trouble were taken to consult the history of chess, it would be discovered that we are not in error.

The philosopher, Benjamin Franklin, the man of many inventions, the man who always occupied himself with great matters, could find time not only to play chess, but also to write on the morals of the game, and perhaps he did this to strengthen his patience for more difficult encounters. Mr. R. A. Proctor, the astronomer, is a celebrated problematist, and endeavors to discover new worlds in the game by his patience and perseverance. Sir Walter Scott was fond of chess, as it afforded him relief from severe thought.

Almost every celebrated general was, or is, a votary of the royal game. Alexander the Great, Frederick the Great, most of Napoleon's marshals, and also Napoleon himself, were very fond of playing. In our time Generals Sherman and Sheridan frequently play chess, and also General Grant is said to be skilled in it. We can imagine the last named at the board, smoking away vigorously while coolly making his moves, and bound to win.

To be sure, there are players who are very much excited and can scarcely keep themselves quiet, but such players are usually possessed of no great ability. The inexperienced player will exhibit, usually, a very different manner from the expert, being restless and agitated, while the latter takes things easy, and labors with a steady purpose. He has confidence in himself, and never becomes over-excited, although his game may be almost lost. This was Mr. Morphy's peculiar trait. He never became excited while playing, nor do great players like Messrs. Zukertort, Stinitz, and Blackburn. Coolness is especially the characteristic of those that are in the habit of playing without sight of the board.

E. BARBE.

I HAVE been studying Phrenology ever since 1873, and find it a great help in picking out good help and managing men, of whom I have employed a large number. It teaches me that there are many men in wrong places, in the professions especially.

W. G. F.

U. S. Engineer's Office, New Orleans, O.

I BELIEVE in the progressiveness of the race of man, and most earnestly desire it promoted. I believe you are adopting the right means to secure it, in seeking to advance the physical, mental, and moral health of man; and I regard you raised up of God as His prophets, suited to the wants of the age.

R. H. C.

London, Ont.

PERSONAL.

PRINCE LEOPOLD, of England, otherwise known as the Duke of Albany, died suddenly at Cannes, France, on the 28th of March.

Fully styled, the Prince was His Royal Highness Leopold George Duncan Albert, Prince of the United Kingdom of Great Britain and Ireland, Duke of Albany, Earl of Clarence, Baron Arklow, Duke of Saxony, Prince of Saxe-Coburg and Gotha, Knight of the Most Noble Order of the Garter. He was the fourth son and seventh child of Victoria and Albert, and the youngest next to the Princess Beatrice of the royal family. He was born on April 7, 1853. From infancy his health was delicate, and he led a retired life in accordance with his tastes, which were simple and scholastic. In these respects, as well as in his personal bearing and manners, he bore a close resemblance to his father, the Prince Consort.

In May, 1881, Prince Leopold was made a peer in his own right, the ancient Scottish title of Duke of Albany being revived for him, and in that capacity on June 20th following he took his seat in the House of Lords. On April 27, 1882, he married, in St. George's Chapel, Windsor, Her Serene Highness Helena Frederica Augusta, Princess of Waldeck-Pyrmont, the ceremony having been several times postponed on account of his health. The royal pair made their home at Claremont House, near Esher, Surrey, and on February 25, 1883, a daughter was born to them, to whom was given the name of Alice Mary Victoria Augusta Pauline.

Prince Leopold, though little seen in public, had a warm place in the affection and esteem of the British public on account of the earnest interest he took in public affairs, particularly matters relating to the educational system of the kingdom.

MADAME CHARLOTTE ERASMI, a German woman left a widow with six children, has built up a great business in the quaint old town of Lubeck. A dozen years ago she opened a little shop for the sale of canned fruits and preserved meats and vege-

tables. She now has a branch house in London, a large trade in New York, and sends her goods all over the world. And yet they make a row over there about American beef and pork!

GENERAL BEAUREGARD, one of the eminent Southern relics of the late war, lives in a handsome cottage on St. Charles Avenue, New Orleans. He owns a fine plantation on the Teche, is a stockholder in the Louisiana Lottery Company, and altogether regarded comfortably well off, though he made no money out of the late war.

A MANCHESTER (England) paper says: "The phrenological lectures by Professor L. N. Fowler, in the Hulme Town Hall, continue to attract large audiences. The subject of last night's lecture was 'Health and Longevity,' and Mr. Fowler as usual succeeded in interesting his hearers, and at the same time imparting much useful information." We are pleased to learn of the Professor's continued success. He deserves it.

MRS. LYDIA STURTEVANT MCCAMMON, who died a short time ago in Albany in her ninety-eighth year, was probably the oldest inhabitant of that city. She was born in Massachusetts, and belonged to a long-lived family. Her mother died at ninety-seven, her brother was thrown from his carriage and killed at ninety-nine, and her sister is still living in Boston, hale and hearty, at ninety-four. She was married and went to Albany to live in 1804.

WISDOM.

"Think truly, and thy thought
'Shall be a fruitful seed."

HE that keeps his temper is better than he that can keep a carriage.

"GENEROUS to a fault" is sometimes said of men who really are generous only to their own faults.

THERE is a youth that bids defiance to age, and there is a kindness which laughs at the world's rough usage.

NATURE has many perfections to show that it is an image of the Deity; and it has defects, to show that it is but an image.

MAKE method your slave, but be not a slave to method. Hasty conclusions are the mark of a fool. Precipitation is the ruin of the young; delay, the ruin of the old. The young are slaves to novelty, the old to custom.—*Samuel Maunders.*

To share the fancy is no trifling good,
Where health is studied; for whatever moves
The mind with calm delight, promotes the just
And natural movements of the harmonious frame.

DON'T forget three little words—"If you please." Life is made up, not of great sacrifices or duties, but of little things, of which smiles and kindness and small obligations, given habitually, are what win and preserve the heart, and secure comfort.

"I AM an agnostic!" remarked a young man in swelling accents. "And an agnostic is what?" inquired an elderly gentleman. "An agnostic," replied the fresh youth, in a manner expressive of his pity for his interlocutor's ignorance; "an agnostic is a fellow, you know, who isn't sure of anything." "I see," replied the old man; "but how does it happen that you are sure you are an agnostic?"

MIRTH.

"A little nonsense now and then
Is relished by the wisest men."

"WHAT does the word 'pedigree' mean, John?" "It means 'descent.'" "Write a sentence on the board containing that word." John went up and chalked off the following: "We *pedigreed* down the hill."—*Ex.*

PROFESSOR BLACKIE confessed to speaking from experience when he characterized courtship as "a period of ecstatic worship," and the time following it one of "evangelical toleration," which is "a grand school of sanctification."

SEVEN Leavenworth doctors were gathered around a man who fell on the walk. Four called it sun-stroke, and the others said it was a fit. Along came a small boy, and proved it was banana-peel.

A GIRL from Cincinnati
Kept on growing fat and fattah,
Though she dieted on battah
For a yeah.

In vain she tried to scattah,
All the adiposal mattah,
Till the doctor said she'd bettah
Stop her beah.

"ARE you going to make a flower-bed here?" asked a young lady of her father's gardener. "Yes, miss; them's the orders." "Why, it'll spoil our croquet ground!" "Can't help it, miss. Your papa says he's bound to have this plot laid out for horticulture, not husbandry."

AN old negro and his son called on the editor of a newspaper.

"I wants my son to work in yer office, sah."

"What can he do?"

"Oh, at fust he kain't do nuthin' but edick yer paper, but arter awhile, when he learns mo' sense, he ken black yer boots an' sweep de flo'."—*Arkansas Traveller.*



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

DUE WEST; or, Round the World in Ten Months. By Maturin M. Ballou. 12mo, pp. 387. Cloth. Price, \$1.50. Houghton, Mifflin & Co., Publishers, Boston.

The book reviewer of to-day is given so many volumes of travel in the course of a year, that he has some excuse for indifference when called upon to examine a new one, even if its title, as in the present case, indicates that most extended of journeys, around the world. One might say, in glancing at Mr. Ballou's title, What can a man see who rushes around this big globe in ten months? Certainly enough, we should answer to such a query, especially if he were a quick-sighted observer, and possessed also of the habit of rapid conception, to fill a good-sized book, and that with matter out of the commonplace, and not paraphrases of Baedeker or Murray. One can make the tour of the world now in three months. Then ten months affords comparative leisure for special studies of the curious habits of oriental peoples. Mr. Ballou was one of a small party that made the extended tour aforesaid, starting westward from Boston, and crossing the American Continent to San Francisco, thence proceeding by way of Japan, China, the Malacca Straits, Ceylon, India, through the Sea of Arabia, the Straits of Babelmandeb, the Red Sea, Egypt, the Mediterranean, Malta, Italy, France, across the Channel to England, and thence across the Atlantic to the point of departure. He wisely refrains from dilating on American topics, but devotes the greater part of his book to Asia. The sketches of Japanese life are very interesting, and bring us nearer to the real condition of that mysterious branch of the great Mongolian family than any other book that we have read. Of China he does not relate much that is new to the well read, but weaves into his reflections many facts and fancies that impart a new relish to the peculiarities of "Celestial" habits. He tells us that "philanthropic societies are numerous in the cities of China—hardly exceeded in variety and excellence of design by those of Europe and America." Among them are orphan asylums, houses for the relief of the indigent, aged, and infirm, hospitals, and free schools. His Indian experiences are related in a condensed yet very interesting style, and are full of information of particular value to one contemplating a visit to the far East. As a whole, the

volume is a successful putting on paper of notes by a traveller who has used his eyes and ears to good purpose, while enjoying an exceptional opportunity to see the world.

ON THE DIFFERENCE BETWEEN PHYSICAL AND MORAL LAW. The Fernley Lecture of 1883. By William Arthur, author of "The Tongue of Fire," etc. 12mo, pp. 231. Price, \$1. Harper & Brothers, New York.

This is a close discussion of the principles that enter into the constitution of the two great departments of being, physical and moral, and its province is mooted in the opening chapter, where the author says that it is "a case not proven that any man could, in the silence of his own soul, ever say to himself with intelligent conviction: I do believe that discernment, judgment, and choice; that forethought, afterthought, and conception; that affection, imagination, and conscience are governed by laws of one and the same order as weight and measure, taste and odor, color and form." He is not inclined to believe that there are laws of two different orders, but that law in the proper sense, and in the familiar sense clear to the jurist and to the intelligence of the people, exists in the realm of morals, and is the instrument of preserving order between man and man. There is "something analogous" to this in the realm of physics, but it is not really law in any scientific or philosophical sense, but nothing more nor less than Rule, or a certain Order of action. Having once called an unconscious instrument an agent, it becomes easy by a stretch of the same kind of rhetoric, to ascribe qualities or virtues to it; and this process naturally enough leads men on until they are found imputing to unconscious atoms powers fit to produce even intelligent creatures, usurping in the universe the place of an intelligent Creator.

Mr. Arthur views his topic from both objective and subjective sides, and considers its more essential connections in the following subdivisions: The two kinds of Agents governed by the two Orders of law respectively; The different kinds of relations established by the two Orders of law respectively; The nature of the two Orders of law, and how they respectively govern their domains; The combined operation of the two Orders of law, resulting in a system of free Agents and fixed Instruments, devolves upon the free Agents certain powers of modifying phenomena, even by virtue of the inflexibility of physical law; What is fairly presupposed by the existence of the two Orders of law and their co-ordinated action. This summary, in its terms, indicates the definite and close reasoning by which the author points out many of the errors of the materialists in their interpretation of phenomena, and in forcing incompetent conclusions with reference to the sources of moral action. For instance, his short and sharp criticism of Lewes' assertion regarding the formation of soap-bubbles, discloses the emptiness of a certain line of sophistry in vogue

with philosophers of the Comte class. A good section of the work is devoted to the consideration of the theories of Comte and his disciples, and properly so on account of the hold the "positive philosophy" has obtained in advanced thought; and we can very heartily commend Mr. Arthur to those who would read a neat and compact refutation of that philosophy.

FARM CONVENIENCES. A Practical Hand-book for the Farmer. Two Hundred and Twelve Illustrations. 12mo, pp. 240. Price, \$1. Orange Judd Company, New York. For sale also by Fowler & Wells Company, New York.

One in glancing through this very neatly printed volume, compact and substantial, will be impressed that the compiler has exercised more than average taste as well as first-rate practical judgment, in his selection and adaptation. We may venture to say, that of the two hundred or more farm conveniences described, scarcely one may be found that will not meet the approbation of the practical farmer; and ninety-five per cent. of them will suggest something of value to the man who has a village home with garden enough to raise a mess of green pease for his table. One point which is of special significance in these farm conveniences is, that about every one of them can be made by the farmer who has some idea of mechanical construction, and does not find it necessary to appeal to a professional nail-driver when he wants anything done. A comparatively little thing will sometimes save a man much annoyance and loss of time. Take, for instance, that suggestion on the eighty-seventh page with regard to unloading corn: the simple arrangement there described will very considerably ease the labor of transferring the corn crop from the field to the crib. And the suggestions later on in the book, with regard to filing a saw, would save a man inconvenience and weariness in the operation. The book has only to be glanced at for a moment, by any farmer who has the slightest claim to enterprise, to be appreciated and wanted.

THE MEDICAL DIRECTORY OF PHILADELPHIA FOR 1884. Edited by Samuel B. Hoppin, M.D. 12mo, pp. 205. Cloth. Price, \$1.50. P. Blakiston, Son & Co., Publishers, Philadelphia.

A very serviceable volume for the reference of the physician, druggist, dentist, and all who are interested in the charitable, sanitary, and reformatory affairs of Philadelphia. Dr. Hoppin has been at some pains to make the book a complete guide with respect to the locality and character of all branches of service having relation to medicine. He provides a list of the Homes established for Adults and Children, of the different Hospitals, Dispensaries, and of institutions for special relief; besides naming the medical schools, their terms and requisites; medical societies; the public duties of physicians; and giving a general list of those engaged in the practice of medicine and surgery.

HAND-BOOK OF CHRISTIAN EVIDENCE; or, Facts Against Infidelity. By Lawrence W. Scott. Revised Edition. 12mo, pp. 341. John Burns, Publisher, St. Louis.

There are books and books on the Christian evidences, although some authorities say that Paley and Butler are sufficient for most practical purposes. Yet how much of a public has the archdeacon and the bishop to-day? People continually ask for something reasonable that deals with questions mooted on the platform and in the social circle, and started by the scientist and the liberal. Hence it is that the earnest, sensitive theologian finds himself prompted to speak and write in support of his belief; and according to his point of view, so is the character of his argument. In the volume before us we trace the marks of long study and conscientious thought, not only on what may be termed the primary data of Christian ethics, but also on the data of latter-day science, and the theories of modern philosophers, agnostic, materialistic, positive, etc., that have a bearing upon religious faith. The avowed object of the author is, *first*, to furnish ministers the most important facts and documents relating to the great controversy which is now agitating leading minds; *second*, to inform the general reader, and strengthen the faith of the Christian; and, *third*, "to reason with sceptics and infidels, so that those who are open to conviction may be convinced, and others may be left without excuse."

In a comparatively brief area of paper and typography, Mr. Scott covers an extensive field of argument and controversy. He deals chiefly with essentials, and is forcible, clear, and happy in his manner of presenting them. The divine origin of the Bible; Fulfilled Prophecies; The divine origin of the Christian religion; Infidel review and reply, are the general topics. To use the words of a notice of the book that appeared in a sceptical organ, we "would advise all Christians who want to be able to give a reason for their faith (as good a one as the subject will admit of), to peruse this book."

PUBLICATIONS RECEIVED.

BIOCEN. A speculation on the origin and nature of life, by Prof. Elliot Coues, member of the National Academy of Science, etc. Second edition. Published by S. T. Estes & Lauriat, of Boston. This is a pamphlet of sixty pages or more, and they are neatly printed pages, designed to answer many questions arising in the materialistic philosophy of the day, affecting the sources of human life and the reason of human beings. It is a well-written argument, drawn from simple facts, sustaining the operation of a spiritual force or agency in man, that gives him elevation, refinement, and a purpose peculiarly his own. The idea entertained by materialists, that man is nothing more than a compound of certain chemical elements, having attained a certain degree of development, and after

living a certain span of time disappears, or is resolved into the original elements as dead matter, finds no encouragement here; the author shows that the difference between being dead and alive is wide; the principle of life or the cause of life is an entity of refinement that early points to a creative cause. True science can find and recognize the spiritual within the natural body, and the tendency of scientific inference is toward acceptance of a future state, and to reject the doctrine of annihilation. The pamphlet is worth the perusal of our moralists, because it would suggest to many new thought and new data.

PALLISER'S USEFUL TABLETS. These are a series of designs for the use of architects, builders, masons, and other handicraftsmen who contribute to the equipment of our homes. The designs are practical in all respects, drawings being made to measure, large enough for the convenient use of the mechanic, so that they can be readily understood and followed. The work is designed for serial issue, and its first number is an elaborate affair, comprising forty plates, that include designs for houses complete, besides special drawings illustrative of neat and tasteful interior furnishings; designs for doors and staircases, mantels and chairs, side-boards, counters, desks, terra-cotta and brick-work, conservatories, balconies, cupolas, cornices, and wall-finish. Price \$1. Published by Palliser, Palliser & Co., Bridgeport, Conn.

CORPULENCE, and its Treatment on Physiological Principles. By Dr. Wilhelm Ebstein, Germany. Translated by Emil W. Hoeber, M.D., of New York. Published by Brentano, New York. This is a simple discussion of the physiology of corpulence; in other words, why some people have a tendency to increase in fatness. The views of leading physiologists and physicians are drawn upon, and the different methods which have appeared from time to time, designed to reduce abnormal weight, are discussed rationally. What fat means, how it is derived, whether or not it is healthful in all cases to attempt its reduction, are among the questions the author endeavors to answer. It is a fact, as he shows, that some people fatten constitutionally; and any attempt to reduce the bulk of such people that is not based upon sound principles, will be likely to be detrimental to their health. The Banting cure he claims to be nothing more or less than a starvation cure, leading to organic disorders, and, therefore, dangerous; and any method that is not accompanied by a thorough diet, is useless if not dangerous. Price 25 cents.

MUMU, and **THE DIARY OF A SUPERFLUOUS MAN.** By Ivan Tourgenieff. No. 107 of Funk & Wagnalls' "Standard Library." Price, 15 cts.

These two stories are excellent representations of the power of this distinguished Russian author. "Mumu" depicts in graphic style the serf-life of

Russia; and "The Diary of a Superfluous Man," the condition of Russian upper classes. The few translations of Tourgenieff's works known to the American public have come through the French, thus making a double conversion, by which much of the original spirit of the author was lost. The translations here given are direct from the Russian, made by a fellow-countryman of the novelist.

CHRISTIANITY TRIUMPHANT. By John P. Newman, D.D., LL.D. 8vo, pp. 136. Price 15 cents. Funk & Wagnalls, New York. A large theme, and well and eloquently discussed by an able writer. The array of facts which Dr. Newman presents appeals to our common-sense. We will not say a book of this kind is needed in this era of scepticism, agnostic controversy, and flippant indifference to moral truth, for the fact is apparent to very slight observation. Dr. Newman writes for the masses—especially for young people; his sentences are clear, bright, and spirited. We can commend the book.

THE HOMILETIC MONTHLY for April offers an array of distinguished writers—American, English, and German. The leading sermon is by Prof. Christlieb. Pres. Hill discourses on "The Kingdom of God." The shorter sermons, by Drs. Henry J. Van Dyke, R. S. Storrs, P. S. Henson, and Canon Liddon and Rev. C. H. Spurgeon, of London, are admirable, and "The International Sunday-school Service" is well furnished by leading clergymen. The number, as a whole, furnishes in compact form a large amount of fresh thought and illustration bearing on current moral and religious topics. Funk & Wagnalls, 10 and 12 Dey Street, New York.

THE BANKER'S MAGAZINE AND STATISTICAL REGISTER, edited by Albert S. Bowles, is nearing the fortieth year of its existence, and although closely related to the most selfish of all human interests—money-getting—this veteran monthly indicates a free and candid spirit, for the most part, in its discussion of the topics belonging to finance. It contains in every issue some matter of value to the economist and public man.

AMONG the medical exchanges which we receive from month to month, are the *Hahnemannian Monthly*, a well-known organ of the Homeopathic school; the *American Psychological Journal*, issued by the National Association for the protection of the insane and prevention of insanity; the *American Medical Journal*, and *Medical Tribune*, leading advocates of the Eclectics; the *Druggists' Circular*, the oldest of the monthlies in that trade interest; the *St. Louis Medical Journal*, and *Buffalo Medical and Surgical Journal*, prominent old-school organs West, are to be mentioned.

THE SCIENTIFIC AMERICAN, a weekly published by Messrs. Munn & Co. in New York, deserves the liberal support it receives on account of its suitability for the general reader, bringing to his

notice the later results of scientific investigation and mechanical invention.

LORD & THOMAS' POCKET MAP OF THE UNITED STATES, showing the new standard railroad time. It is a convenient little map for reference, now that the new division of time has become so generally accepted.

THE POPULAR SCIENCE MONTHLY, published by Messrs. Appleton & Co., New York, contains in its April number several significant papers; for instance, Herbert Spencer's "Coming Slavery," "Photographing a Streak of Lightning," "The Remedies of Nature," "Prehistoric Art in America," "The Work of Shod and Unshod Horses," etc.

FIFE AND DRUM SERIES, No. 11, contains a story entitled "The Little Red Stocking that Hung at the Gate," by Faith Wynne; a pleasant Christmas story suited to young people. There are two other stories of a similar nature. Price 10 cents. J. N. Stearns, Publishing Agent, New York.

LAW AND THE LIQUOR TRAFFIC. A paper read before the general association of Congregational churches, at the annual meeting held at Ottawa, Ill., May 30, 1883, by Rev. F. A. Noble, D.D., in which very conclusive answers are made to such questions as these: "Has prohibition the legitimate place in government?" "Can prohibition be made effective?" It is a very able argument in the affirmative. Price 10 cents. J. N. Stearns, New York, Publisher.

EIGHTH ANNUAL REPORT of the Managers and Officers of the State's Asylum of the Insane at Morristown, N. J., for the year ending Oct. 31, 1883; a neatly tabulated statement of the working of the largest establishment for the insane in the United States. The management of Dr. H. A. Buttolph is deserving of commendation in a high degree.

THE MANHATTAN shows, in its late issues, a decided advance in its literature and artistic embellishment, and one is led to suspect a tendency on the part of the publisher to bid for the success that has been won by *Harper's* and the *Century*. The articles generally have a freshness that is attractive, nearly all treating of topics of current importance, and supplied by contributors of reputation.

A BOOK OF PLANT DESCRIPTIONS: or record of plant analysis; with a synopsis of the terms most frequently used in the description of plants; and a schedule of work to be done in a botanical laboratory. Also a list of subjects suitable for these. Prepared for the use of teachers and students. By George G. Groff, A.M.M., Professor of Natural History in the University of Louisburg, Pa. Fifth edition, revised and enlarged. Price, 30 cents. Science and Health Publication Company, Louisburg, Pa.

ALL THE LEADING DRUGGISTS SELL PEARS SOAP

PEARS SOAP PEARS SOAP PEARS SOAP PEARS SOAP PEARS SOAP PEARS SOAP PEARS SOAP PEARS SOAP PEARS SOAP

PEARS SOAP PEARS SOAP PEARS SOAP PEARS SOAP PEARS SOAP PEARS SOAP PEARS SOAP PEARS SOAP PEARS SOAP

PEARS' SOAP

THE FAMOUS ENGLISH COMPLEXION SOAP.



If Cleanliness is next to Godliness, Soap must be considered as a Means of Grace and a Clergyman who recommends moral things should be willing to recommend Soap. I am told that my commendation of Pears' Soap has opened for it a large sale in the United States. I am willing to stand by every word in favor of it that I ever uttered. A man must be fastidious indeed who is not satisfied with it.

Henry Ward Beecher



ESTABLISHED IN LONDON 100 YEARS.

A SPECIALTY FOR THE SKIN & COMPLEXION,
As recommended by the greatest English authority on the Skin,
PROF. SIR ERASMUS WILSON, F. R. S.
Pres. of the Royal Col. of Surgeons, England.

Nothing adds so much to personal appearance as a **Bright, Clear Complexion and a Soft Skin.** With these the plainest features become attractive. Without them the handsomest are but coldly impressive.

Many a complexion is marred by impure alkaline and Colored Toilet Soap.

PEARS' SOAP

Is specially prepared for the delicate skin of ladies and children and others sensitive to the weather, winter or summer. In England it is pre-eminently the complexion Soap, and is recommended by all the best authorities, as, on account of its emollient, non-irritant character, **Redness, Roughness and Chapping are prevented, and a clear and bright appearance and a soft, velvety condition imparted and maintained, and a good, healthful and attractive complexion ensured.**

Its agreeable and lasting perfume, beautiful appearance, and soothing properties commend it as the greatest luxury of the toilet. Its durability and consequent economy is remarkable.

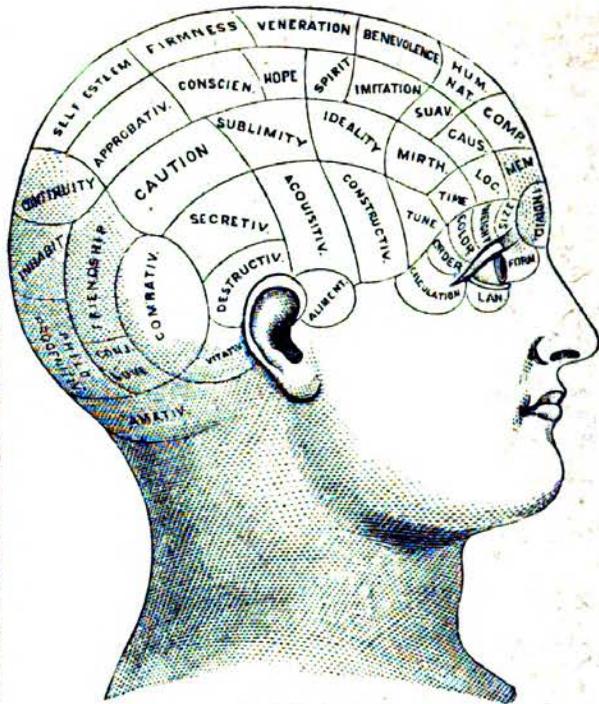
15 INTERNATIONAL AWARDS.

ALL THE LEADING DRUGGISTS SELL PEARS' SOAP

A Choice of Premiums.

THE DISEASES OF MODERN LIFE.

A work on the avoidable causes of Disease. By Benjamin W. Richardson, one of the most widely known of English physicians. 12mo, extra cloth, 500 pages. \$1.50. One of the most important Health books ever published. It treats most fully of prevention of disease, by pointing out in a simple and practical manner the avoidable causes. We have arranged for a large Edition of this work as a Premium, and a copy in large type bound in extra fine cloth is offered to each subscriber to THE PHRENOLOGICAL JOURNAL, or we will give the Bust Premium.



THE PHRENOLOGICAL BUST.
This bust is made of Plaster of Paris, and is so lettered as to show the exact location of each of the Phrenological Organs. The head is nearly life-size, and very ornamental, deserving a place on the centre-table or mantel, in parlor, office, or study, and until recently has sold for \$2.00. This, with the illustrated key which accompanies each Bust, should be in the hands of all who would know "HOW TO READ CHARACTER." It is now offered as a Premium to each yearly subscriber to THE PHRENOLOGICAL JOURNAL, or we will send the Book Premium.

THE PHRENOLOGICAL JOURNAL

Is widely known in America and Europe, having been before the reading world nearly fifty years, and occupying a place in literature exclusively its own, viz., the study of HUMAN NATURE in all its phases, including Phrenology, Physiognomy, Ethnology, Physiology, etc., together with the "SCIENCE OF HEALTH," and no expense will be spared to make it the best publication for general circulation, tending always to make men better physically, mentally, and morally. Parents should read the JOURNAL, that they may better know how to govern and train their children. Young people should read the JOURNAL, that they may make the most of themselves. It has long met with the hearty approval of the press and the people.

N. Y. Tribune says: "Few works will better repay perusal in the family than this rich storehouse of instruction, which never fails to illustrate the practical philosophy of life, with its lively expositions, appropriate anecdotes, and agreeable sketches of distinguished individuals."

N. Y. Times says: "THE PHRENOLOGICAL JOURNAL proves that the increasing years of a periodical is no reason for its lessening its enterprise or for diminishing its abundance of interesting matter. If all magazines increased in merit as steadily as THE PHRENOLOGICAL JOURNAL, they would deserve in time to show equal evidences of popularity."

Christian Union says: "It is well known as a popular storehouse for useful thought. It teaches men to know themselves, and constantly presents matters of the highest interest to intelligent readers, and has the advantage of having always been not only 'up with the times,' but a little in advance. Its popularity shows the result of enterprise and brains."

Sunday-School Times says: "A great amount and variety of useful and instructive matter finds its way into this PHRENOLOGICAL monthly. It is progressive and liberal, in the good sense of those terms—a readable, valuable journal."

TERMS.

The JOURNAL is published monthly at \$2.00 a year, or 20 cents a Number. To each yearly subscriber is given either the BUST or BOOK Premium described above. When the Premiums are sent, 25 cents extra must be received with each subscription to pay postage on the JOURNAL and the expense of boxing and packing the Bust, which will be sent by express, or No. 2, a smaller size, or the Book Premium, will be sent by mail, post-paid.

Send amount in P. O. Orders, P. N., Drafts on New York, or in Registered Letters. Postage-stamps will be received. AGENTS WANTED. Send 10 cents for specimen Number, Premium List, Posters, etc. Address

FOWLER & WELLS CO., Publishers, 753 Broadway, New York.

14
8

7004A78

Old Series, Vol. 78
June, 1884.

KNOW THYSELF

New Series, Vol. 29
NUMBER 6.



A First-class Monthly Magazine, devoted to the Study of Human Nature in all its Phases.

SUBSCRIPTION TERMS.
 1 copy, 1 year. . . \$2.00
 1 copy, 6 months. . \$1.00
 1 copy, 1 month. . . 20c.
 10 copies, 1 year . \$15.00

CONTENTS.

I. Henri Milne-Edwards, the Naturalist and Author. Portrait, . . .	293	XIV. Spirit-Health,	332
II. Texas and San Antonio. With Illustrations,	297	XV. A Seductive Drug,	333
III. Organic Cerebration, or How THE FACULTIES COMBINE,	304	Notes in Science and Agriculture.—	
IV. Man in Geological Eras,	306	Curious Customs of the Semitoles; Evidences of the Deluge; Origin of Petroleum; Constituents of Corn-cob Ashes; Railway Transportation in Great Britain; Raisin-Making in California; Effect of Names on Value; What is the Blue-Grass Region? American Inventions,	335
V. Savorgnan De Brazza, the Explorer and Diplomat. Portrait,	310	Editorial and Current Items.—Convince their Intellects; Comic Biography; The Institute and its Work,	338
VI. Pretty Tales Devoid of Truth,	313	Poetry.—Courage; How the Story Grew.	
VII. Superstitions Concerning Plants. Illustrated	314	Answers to Correspondents.—Manifestations of Organs; Finger Character; Comparative State Longevity; Metallic Drugs; Catarrh Cure; Character and the Features; English Analysis; Some Tobacco Data. WHAT THEY SAY.—The Story of an Examination,	341
VIII. Polity of Thought,	317	Personal—Wisdom—Mirth—Library.	
IX. Aspasia, the Savant,	320		
X. Hints to Mothers on Early Child-TRAINING,	323		
XI. Little Courtesies,	326		
XII. Why so many Women Fade Early,	328		
XIII. Air and Sun Baths,	331		

ENTERED AT THE POST-OFFICE AT NEW YORK AS SECOND-CLASS MATTER.
 FOWLER & WELLS CO., Publishers, 763 Broadway, New York.
 L. N. FOWLER, Imperial Buildings, London, England.

A NEW BOOK.
HEALTH IN THE HOUSEHOLD;
OR,
HYGIENIC COOKERY.

BY SUSANNA W. DODDS, M.D.

One large 12mo vol., 600 pp., extra cloth or oil-cloth. Price, \$2.00.

The author of this work is specially qualified for her task, as she is both a physician and a practical housekeeper. It is unquestionably the best work ever written on the healthful preparation of food, and should be in the hands of every housekeeper who wishes to prepare food healthfully and palatably. The best way and the reason why are given. It is complete in every department. To show something of the scope of the work, we print the following from the

TABLE OF CONTENTS.

PART I.—THE REASON WHY.

Constituents of Food; Food and Physical Development; Wheat and other Cereals; The Fruits and Vegetables; Meat, Milk, Butter and Eggs, Sugar, Salt, Pepper, and other Condiments as Articles of Diet; Tea, Coffee, etc.; Food, and its Effect on Intellect and Morals; Food Combinations, etc.; Two Meals or Three; Dietetic Rules; Hints on Cooking.

PART II.—THE HYGIENIC DIETARY.

Unleavened, Leavened, and other Breads; Plain Fruit Cakes; Steamed Grains; Mushes; Pastries;

To show something of what is thought of this work, we copy a few brief extracts from the many

NOTICES OF THE PRESS.

"This work contains a good deal of excellent advice about wholesome food, and gives directions for preparing many dishes in a way that will make luxuries for the palate out of many simple productions of Nature which are now lost by a vicious cookery."—*Home Journal*.

"Another book on cookery, and one that appears to be fully the equal in all respects, and superior to many of its predecessors. Simplicity is sought to be blended with science, economy with all the enjoyments of the table, and health and happiness with an ample household liberality. Every purse and every taste will find in Mrs. Dodds' book, material within its means of grasp for efficient kitchen administration."—*New York Star*.

"The book can not fail to be of great value in every household to those who will intelligently appreciate the author's stand-point. And there are but few who will not concede that it would be a public benefit if our people generally would become better informed as to the better mode of living that the author intends."—*Scientific American*.

"She evidently knows what she is writing about, and her book is eminently practical upon every page. It is more than a book of recipes for making soups, and pies, and cake; it is an educator of how to make the home the abode of healthful people. The writing is systematic, precise, and no receipt is given, we are assured, that has not been fully and carefully tested."—*The Daily Inter-Ocean, Chicago, Ill.*

"The book is a good one, and should be given a place in every well-regulated cuisine."—*Indianapolis Journal*.

"As a comprehensive work on the subject of healthful cookery, there is no other in print which is superior, and which brings the subject so clearly and squarely to the understanding of an average housekeeper. The recipes as well as the information, general directions, etc., are given in explicit, simple language, so that no one can mistake them."—*Methodist Recorder*.

The work will be sent to any address, by mail, post-paid, on receipt of price, \$2.00. AGENTS WANTED, to whom special terms will be given. Send for terms. Address

Vegetables; Soups; Fruits and Fruit Juices; Foods and Drinks for the Sick and Infants; Preserving Fruits and Vegetables; Canning Fruits, etc.; Miscellaneous.

PART III.—THE COMPROMISE.

Steamed Bread; Corn Cake; Muffins; Griddle-cakes; Cake-making; Pies; Puddings; Plain Desserts; Pudding Sauces, Creams, etc.; Custards, Blanc-manges, etc.; Moulded Farinacea; Jellies, Jams, and Syrups; Ripe Fruits for Desserts; Vegetables; Soups; Beef, Mutton, and Lamb; Venison; Poultry; Wild Birds and other Game; Fish; Hashes and Toasts; Eggs; Practical Hints.

"We see no reason why it should not go into every household. The recipes are numerous and, we judge, admirable. We believe those for preparing cereals, cooking fruits and vegetables, making the least objectionable sorts of pastry, are among the best available. The book is desirable on that account, and we recommend it to our readers as a valuable addition to the store library."—*American Grocer*.

"In this book Dr. Dodds deals with the whole subject scientifically, and yet has made her instructions entirely practical. The book will certainly prove useful, and if its precepts could be universally followed, without doubt human life would be considerably lengthened."—*Springfield Union*.

"The author, having undertaken to prepare a work that should enable health-seekers to furnish their tables with food that is wholesome and at the same time palatable, has admirably succeeded in doing so, judging from the impression received from a glance through its pages."—*Banner of Light*.

"Here is a cook-book prepared by an educated lady physician. It seems to be a very sensible addition to the voluminous literature on this subject, which ordinarily has little reference to the hygienic character of the preparations which are described."—*Zion's Herald*.

"This one seems to us to be most sensible and practical, while yet based upon scientific principles—in short, the best. If it were in every household, there would be far less misery in the world."—*South and West*.

"There is much good sense in the book, and there is plenty of occasion for attacking the ordinary methods of cooking, as well as the common style of diet. Inexperienced housekeepers will find many valuable suggestions as to the care of a house, dealing with 'help,' marketing, and table etiquette."—*Morning Star*.

"She sets forth the why and wherefore of cookery, and devotes the larger portion of the work to those articles essential to good blood, strong bodies, and vigorous minds."—*New Haven Register*.

FOWLER & WELLS CO., Publishers, 753 Broadway, N. Y.

THE
PHRENOLOGICAL JOURNAL
 AND
LIFE ILLUSTRATED.
 VOL. 78. 1884.

NUMBER 6.]

June, 1884.

[WHOLE No. 546.



HENRI MILNE-EDWARDS,

THE EMINENT NATURALIST AND TEACHER.

[Phrenological Analysis by N. Sizer.]

THE first impression which this portrait makes upon the observer might be expressed in three words,—knowledge,

power, goodness. It has a Dr. Franklin look, especially in the general expression of the face, and also in the magnitude of the head and face. The physiology or tem-

perament of this subject shows, first, vital power; the signs of digestion, power of breathing, excellent circulation, and the relish for abundance of fresh air, are decidedly marked in the structure of the face and in the depth of the chest; hence abundant life-power is the result, and with this ability to work incessantly, at a high point of mental pressure and thought, even to old age. The mental or studious temperament is shown by the length of the brain from the ear forward, and by its height from the ear upward, and by the general expression of countenance. The lower half of the forehead, the eyes and nose, are especially feminine, as if he were the picture of his mother. This inheritance gives him not only the basis for nutrition, but practical knowledge, power to acquire education and retain it, and a hunger to know everything for a certainty. The fulness above and about the eyes gives him facility for the acquisition of knowledge, especially by observation. His forehead resembles that of Professor Agassiz, whose mind was fertile in the fields of investigation and discovery similar to his own. We see, also, the indications of a retentive memory, and especial facility for the use of speech and for the memory of names,—qualities essential in his line of study. We see, also, very large Comparison, which enables one to detect resemblances and differences, and to classify objects according to their species, and grade them according to their proper orders. His large Constructiveness would enable him to combine and co-ordinate and systemize his knowledge. The elevation of the head shows Benevolence, sympathy, and reverence for that which is sacred and venerable; and also large Spirituality, which to the discoverer, inventor,

and leader in the progressive fields of knowledge is a great aid. He had a strong belief in the possibilities of much that lies beyond the acquisition of to-day, and hence expected to find beyond the beaten track materials that would repay research. If he had devoted himself to theology he would have been one of the best of preachers, and would have carried a high moral atmosphere wherever he moved. Such ample moral development as his, impresses those who come within the sphere of his influence, with moral, religious, and refined feelings and ideas. In the presence of such an organization bad men suppress their badness, good men try to be better, and the weak are strengthened in the direction of efforts to rise. We have met ministers who had superior intellect and greater force of character, but the top-head was an inch lower than this one; and while they would command respect for their talents, and admiration for their executive force, the religious attributes of faith, hope, tenderness, and forgiveness were never much inspired by their presence, or by their conduct. The neighborhood of such an organization as this impresses people with a higher respect for human nature, and a desire to be good and wise and pure and above reproach. Such an organization anywhere is a reproof to evil-doers, and a stimulus to higher and better living. In the presence of such a head and face children, poor men, aged and feeble women, would be inspired with confidence, trust, and affection; and would gather around him, rejoice in his presence, as animals in cold weather seek a sunny spot to borrow its warmth. The side-head, directly above the ears, seems to be depressed, as if the selfish propensities,—Destructiveness

Combativeness, Secretiveness, Alimentiveness, and Aquisitiveness,—were subordinate: As we rise to the upper part of the side-head we see Caution, Sublimity, Ideality, and Mirthfulness, showing that he was prudent, witty, refined, and a lover of whatever is esthetical. His Firmness was very strong, and that, together with Conscience and the other moral faculties, gave to him his character and stately strength which would enable him to meet the labors and cares of life, and at the same time command the respect of those who are wise and good, and also hold in check and subordination those of a lower cast of character. For instance, if he were a magistrate he would adjudicate criminal cases, and so carry himself toward the culprits, that they would not feel a spirit of enmity; they would think that an elder brother had sorrowfully sat in just judgment upon them, and that his decision, though severe, was well merited.

Such an organization has no enemies, provokes no quarrel or opposition. He would treat his coadjutors with kindness and respect; and while he might be master of them all in scope and strength and clearness of knowledge, he would not seem to arrogate to himself any superior importance, and would win the love as well as admiration and respect of those who might seek to be his rivals. In almost any sphere of life such an organization would secure the co-operation and good wishes of all; and if he were elected to eminent position those who had been his rivals would respect, admire, and befriend him. In this organization there is nothing that seems coarse, base, sensual. He has the loving, the philanthropical, the equable, sympathetical, and kindly indications: and at the same time one sees

strength, discrimination, power of criticism, and the ability to persevere, and stand firmly in the line of duty and effort, until the truth is developed and opposition withdrawn. None would think of overawing, or driving, or compelling such a character; they would suppose they must convince; and that, indeed, would be sufficient without persuasion, or any show of coercion. It is a massive organization with very fine quality, and so harmonious in brain and body as to indicate power, carried in a spirit of gentleness. We rarely meet with a finer expression of human intelligence, virtue, and goodness, carried with such steadiness and strength as to insure leadership, and this implies at once greatness and industry.

Men who have devoted themselves to scientific investigations, at an early period of life, live to a good old age. This is true of the class on both sides of the Atlantic, but among civilized nations France appears to be specially favored by having the largest proportion of aged men in the walks of scientific research. There is Prof. Chevreuil, who at ninety-eight, and notwithstanding he has been made Professor-emeritus by the University of Paris, with a continuance of his old salary, claims that he is about as able to perform the duties of his position as he has ever been during the past fifty years. There is also Prof. N. Joly, of whom we published an interesting account not long since; and also M. Dumas, M. de Quatrefages, and the engineer of the Suez Canal, all men well advanced in life. The gentleman of whom the phrenological description has just been given is an octogenarian, and in his department of investigation has no superior in the world. Always an earnest, quiet, patient, yet enterprising worker, the sixty-three or four years of labor which have been his have been productive of very important results,—as we might say, necessarily. Furthermore, Henri Milne-Edwards occu-

pies a position in physiology which is related to phrenological science,—since his researches, for the most part, have been in the lines of comparative physiology, and there he has won his very high reputation. His elaborate work on comparative physiology and anatomy, brought to completion near the close of 1880, is the highest of its class in the scientific literature of to-day. M. Blanchard said of it: "Many authors have, with more or less success, published treatises for those who were studying; M. Milne-Edwards alone has made one for masters."

This eminent man was born on the 23d of October, in the year 1800, of English parentage, as his name indicates, the family having come from the island of Jamaica and settled in Bruges, Belgium. After the invasion of Belgium by the allies, in 1814, the family removed to Paris, and young Milne-Edwards studied medicine, receiving his degree of Doctor in Medicine in 1823. He appears to have been a close observer at the outset of his active life, as, in the latter part of 1823, he presented several memoirs to the Academy of Sciences on subjects relating to his professional practice. In 1825 he published, in connection with Vavaseur, a "Manual of Materia Medica," a book which attracted sufficient attention to be translated into the English and German languages. Later, he devoted his leisure almost entirely to the study of zoology; although in 1826 he began, in association with M. Audouin, a series of researches on the anatomy, physiology, and zoology of the marine animals of the French coast, and for several years continued his studies in this direction, exploring the coasts of Granville, of the Chaussay Islands, St. Malo, Noirmontiers, etc. His work, "The Littoral of France," embodies the results of these studies; in the meanwhile he published a "Manual of Surgical Anatomy," and devoted some time to chemical analyses.

In 1832 he was appointed Professor of Natural History in the College of Henry IV., and also Professor of Public Hygiene and Natural History in the Central School

of Art and Manufactures. A year or two later he published treatises on the "Elements of Zoology," and a general work on the Crustacea, in three large volumes, with an atlas. In 1834 he visited Algeria, and there prosecuted a course of observations, which were collated in several memoirs presented to the Academy. These are, for the most part, on marine animals. His researches on the Polyyps, the results of which were published in 1838, were begun at this time. Between this year and 1844 he published treatises on the Spermatophores, on the Acelephs, Cephalopods, Eolidians, besides working in Sicily, associated with M. de Quatrefages and M. Blanchard. The details of this journey were set forth in three volumes, his own studies more particularly relating to mollusks.

Returning from Sicily he was appointed Professor in the Faculty of Sciences in Paris, succeeding Geoffroy Saint-Hilaire. The products of other investigations, on the part of M. Milne-Edwards, are seen in his studies on the structure and classification of Polyyps, both recent and fossil; his monograph on British fossil corals; a series of memoirs on the Morphology and classification of the Crustaceans; and "General Tendencies of Nature," a carefully written work. Later, he published the "Natural History of Corals Proper," and a volume on "The Recent Progress of Zoology in France." The important work, however, of which mention has been made already, and that was, as we may say, crowned by a medal, presented to him through a committee of representative French scientists, was begun as early as 1857, and carried onward to the fourteenth volume, which appeared in 1880. This great work includes the lectures which the author has delivered at the Museum of Natural History, during the twenty-three years of its preparation.

Prof. Michael Foster said of this work, when reviewing the ninth volume: "At a time when a differentiation of study is carried to such an extent that many physiologists know very little about other ani-

mals than frogs, rabbits, dogs, and men, and many zoologists have a very meagre acquaintance with the results of experimental physiology, such a work as this, which skilfully weaves together all the principal facts of animal biology, is most wholesome reading."

In 1847 M. Milne-Edwards was nominated an officer of the Legion of Honor, and fourteen years later was made a commander. From the British Royal Society he received the Copley Medal in 1856; and the Scientific Society of the Netherlands, in 1880, awarded him the Boerhaave Medal, it being noteworthy that he was the first person upon whom this medal had been conferred; and when in 1881 the medal, to which the scientific men of different nations had subscribed, was presented to him, M. de Quatrefages remarked in his address:

"We present this medal to you in the name of the scientific men of the world. We all know why our appeal for homage, to be given to you, has been so widely answered. The first memoir you read to the Academy was in 1823. Since

that time you have unceasingly continued to enlarge the field of science by your personal researches, and to teach, by speech or the pen, your rivals first, then the generations that grew up at your side. These labors, these teachings, have continued for nearly sixty years; and to crown your work you have collected into a single book the immense treasures of knowledge accumulated by this long and noble labor."

In his remarks, on the same occasion, M. Dumas said: "With you physiology, in its highest and widest acceptation, has entered permanently into the study of the classification of beings. You have had the rare happiness, my dear friend, to begin young to pursue in your maturity, and to terminate in the fulness of your vigor, the work that will remain a monument."

Although so far advanced in life this eminent savant is still fresh, mentally; seeming, in most respects, to retain the ardor of youth; having for study and research his old earnestness, and for progress a most cordial co-operation.

TEXAS AND SAN ANTONIO.

FEW countries surpass in native resources or in scenic beauty our own magnificent Texas. Forty-six years ago she was the struggling dependence of a tyrannical power, "an infant nationality toddling in poor-clad penury"; now she is the "great, vigorous Hopeful of the American Union."

More than twice as large as England, Scotland, and Ireland combined, with a territory nearly six times as great as the State of Pennsylvania, her breadth from north to south is nearly one thousand miles. She lies below the snow line, and furnishes the best route to the Pacific; fronting on the Gulf, she will yet have a commercial navy whose masts will be seen in every foreign port. She has an endless variety of earth and air and bud and flower, with the greenest valleys, the

bluest skies, and the sunniest hills, embracing the southern part of the temperate zone, where are the most delightful climates of the world.

From the friendly Gulf comes, all summer long, the reviving breeze, fanning for more than a hundred miles interior the whole sea-coast, that is studded with charming bays and bordered by lovely islands. This refreshing breeze is warmed but not heated, by the waters of the Gulf-stream, divided at Cape St. Antonio by the colder current elsewhere underlying them, and gives the nights an agreeable coolness and tempers the heat of the day, making the climate more "uniform, equitable, and mild" than that of any other State in the Union. Her warmest summer days are several degrees in temperature below the greatest heat at the North,

so that deaths from sunstroke are very rare as compared with those occurring in Northern States. Many despairing consumptives have gone to Austin and San Antonio, or the regions still further north and west, and, recovering their health, have prolonged their lives for many years. No desolating tornado or whirling hurricane disturbs the calm of

a never-ceasing comfort and luxury. What a beautiful land! you say, as you see the sun set on the prairies, as he walks downward into his "bed of flowers and verdure, through the rosy pathway of the gorgeous clouds." Around him float light purple clouds, and "beneath him others tinged with the richest vermilion," and when at day-dawn you see the great expanse of



THE OLD CHURCH OF ST. ANTHONY.

this delightful region. The Gulf of Mexico is the unfailing reservoir of Texas. Thence the south winds draw the water that the thirsty north and west winds "drink up and bear away," till the beautiful prairies feel the pleasant, healthful breeze. The rising, heated air of the prairies gladly gives place to this cooler air from the Gulf, and rising, travelling onward still, the south wind follows its airy flight, giving the Texas midsummer

green melt away into the boundless blue, you are thrilled and inspired; the faces you meet, the horses that bear you, seem to glow with health and the joy of life. As you sail down the channels the overhanging magnolia wafts you its perfume; the roses bloom for you all winter. Here grow luxuriantly oak and elm, sycamore and cedar, pine and palmetto, cypress and ash, and every variety of forest-tree. Fig and peach, nectarine, quince, and grape,

grow "side by side in the same sun and soil," while plum, apple, lemon, lime, olive, and pineapple ripen together. Choicest nuts are abundant, and berries in endless variety grow wild. Corn is planted in February, and grain harvested in May, the generous soil yielding a hundred bushels of corn to the acre. Groves of stately live-oaks spread wide their luxuriant boughs; the "long gray moss hangs from every limb," while the clearest waters gurgle up from deep fountains. Under the feet is a "glorious pea-green, velvety carpet of curly mesquite." In the fertile Brazos bottom the cottonwood and magnolia tower above the oak, and the elm and the ash over these; below and above the wild grape climbs, and weaves its network ladder, across whose shining rounds fairies might walk. "Below these is a dense underbrush, over which the wild convolvulus, woodbine and bramble spread their mantle so closely the smallest bird can scarcely hop through it." The trees lean and rest against each other, while through their interlocking boughs you hear the "owl hoot, the woodpecker tap, and the squirrel chatter at midday."

• In this wonderful clime robin and swallow and wren build their peaceful homes. Gentle dove and kingfisher, blackbird and starling, blue-jay and oriole, mockingbird and martin, whippoorwill and parrot, sing their songs. Among the lovely bird-host that thrills the air, the eagle soars and the hawk is seen hovering over its prey.

Rarest, fairest flowers, that we in the North cherish so tenderly, grow here in wonderful and wild profusion. As free as the bird-song is the lavish bloom of mimosa and wax-plant, cardinal and trumpet flower. Lilies, white and blue and golden, wave their shining censers. Tall geraniums and asters and dahlias raise their scarlet and purple and azure crowns. The snowy jasmine gleams forth, the rose and the myrtle mingle their perfume. "Orange and oleander, verbena and pansy look coquettishly out of their midwinter beds at the northern new-comer, and seem to smile at his wonder."

Delicious, glowing red-fish, weighing half a hundred, wait for you in the streams; perch and pike and trout, and yellow and blue and white codfish are abundant, and along the coast are "oysters and crabs and crawfish and turtle, and other shell fish innumerable."

Here the mountain-passes, the deep gorges, the lofty, terraced limestone walls, the dark, precipitous ravines, thrill the lovers of the sublime; and the antiquary finds here gigantic fossils and great silicified trees, standing nearly perpendicular, like some proud monarch of the past.

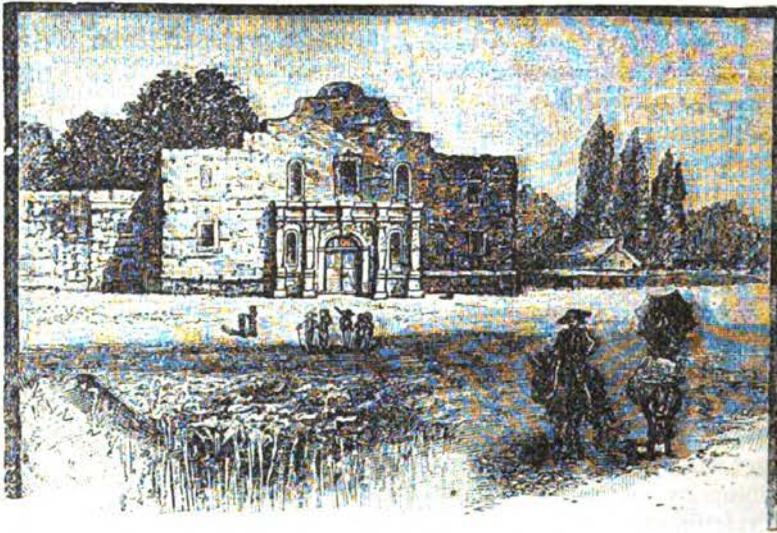
No pen can do justice to the boundless expanse, profound repose, airy arches, alcoves, and groves; the views, beautiful, majestic, sublime, of plain, mountain, and valley, from the Sabine to the Rio Grande, from the blue waters of the Gulf to the endless plains of the North.

Nature has divided Texas by "two distinct climates, with an intermediate region sharing the peculiarities of both." She is divided by nature also in three sections—the seaboard, the uplands or Middle Texas, and the great plains or table-lands. The seaboard is one entire belt of timber, running inland from sixty to a hundred miles, with the most picturesque bays, harbors, and inlets. Its eastern coast is varied by most beautiful plains. Middle Texas rises from three to six hundred feet above the level of the sea. It has many navigable streams, hills and valleys, and undulating prairies and beautiful islands, with running streams and forests. The great plain or table-land, stretching away to the northwest, is rich in soil and broken into lofty mountains. There are precious metals, and agate, chalcedony, and jasper. One single coal-field covers six thousand square miles, and there is a salt lagoon in the south in whose dried bed quantities of salt lie on the surface. In one acid spring is found petroleum, and for a distance around the earth is so charged with bitumen that it is used for fuel. In one county there is what is called a "fountain of lemonade," whose cold, clear, astringent water is said to furnish

relief for many diseases. Many visit the "Sour Lake," to enjoy the cool shade, the Gulf breeze, the limpid bath and the agreeable beverage.

With vast native resources, rapidly increasing facilities for transportation and immigration from South and West, and unsurpassed agricultural advantages, Texas is a refuge for the unfortunate and a most inviting field for enterprise and success. She has been redeemed from the wilderness and disenthralled from Mexico by the devotion, sacrifice, and valor of early settlers. What is she now? What

wall, with embrasures for defensive weapons, and bear solid testimony to the patient courage and zeal of the old Spanish fathers. They built in each mission a chapel for worship, cells for the monks, dwellings for the people, and a fort for defense. There are four of them below San Antonio, on either side of the river, about a mile apart. The mission of San José was founded on the Rio Grande in 1703. It was moved five years after, and then removed and moved again. For better protection from the Indians, it was at last, in 1722, removed with the post to



SAN JOSÉ MISSION.—THE ALAMO.

may she not become? In 1820 San Antonio and Goliad were the only settlements within her vast wild. No city in the Union now excels in picturesque interest the ancient Spanish town of San Antonio, the Alamo city. It has a more heroic history than any place on the American continent. San Antonio was founded in 1692 by Franciscan friars from France. The great churches and mission still stand with the dormitories in excellent preservation. The candles lighted on those altars at that past day have never been allowed to be extinguished. There are still to be seen fine statuary and ornamental work executed by old artists. The churches were all built in enclosures of high, strong

the San Antonio River. The celebrated artist Huita, from Spain, adorned its front with beautiful monuments and statuary, and carved its doors, pillars, windows, and altar. In 1744 the walls of the Church of the Alamo, never finished, were erected. This mission, called by some San José del Alamo, was finally located where the Alamo now stands. The Alamo is in the northeastern part of the town of San Antonio, called by the Mexicans the Alamo, a Spanish word meaning poplar, from a grove of poplar trees once standing near it. The Alamo is a mere wreck of its former grandeur. There are only a few stuccoed buildings huddled against the old church, in a large court once sur-

rounded by a rude wall. The church door is decorated by stuccoed mouldings, all hacked and battered in the battles it has seen. Here in 1836 was fought one of the most remarkable battles ever fought. The Alamo, as a field of heroism, has but one rival in the world's history, and that is Thermopylæ. In this Alamo one hundred and eighty Americans under Bowie and Travis, resisted during thirteen days six thousand Mexicans under Santa Anna, and fought until not one of their number was left to tell the tale. Roman or Grecian history can give no nobler account of soldierly courage and heroism. At the end, five hundred Mexicans dead and five hundred more wounded, lay before the fallen Alamo and its dead defenders, so dearly had they given up their lives. This day's fight did not repress the Texans. It lighted a "brilliant beacon to rally all the free spirits of Texas and their sympathizing Southern and Western brethren." This massacre of the Alamo roused a fire in the breasts of the hardy Texans which resulted in the battle of San Jacinto, the defeat of the whole Mexican army, and the capture of Santa Anna himself, with his best generals. At this battle the Texans, with the war-cry, "Remember the Alamo!" carried all before them.

San Antonio sits in a wide and deep amphitheatre whose northern wall is the cretaceous mountains, and the rounded tumuli and undulations of the prairie slope down to it from the east and west. Through this amphitheatre winds a beautiful river that never varies in depth or temperature. It is as clear as crystal, of the purest, richest blue, flowing silently over shining pebbles and "between reedy banks." Along the banks of this river, and stretching out widely over the amphitheatre, nestles the city, half hidden in its wealth of green foliage, its white stone houses glittering like glass and marble in the declining sun, and contrasting strikingly with its wealth of green. Two rivers wind through it, the San Antonio and San Pedro—St. Anthony and St. Peter—both of sky-blue water, and hundreds of canals

branch out from them. There is hardly a street in San Antonio that has not its running stream. Many of the houses are almost hidden under the shade-trees, fig-trees, flowers, and vines. Each home has a bower of its own. In the spring, summer, and autumn, when the purple grapes cover the clinging vines, when the humming-birds hover over thousands of blue and gold and scarlet flowers, nodding their bright crowns in the perfumed breezes, cooled by the sparkling, flowing streams, these homes seem bowers of delight.

Around the elegant residence of the



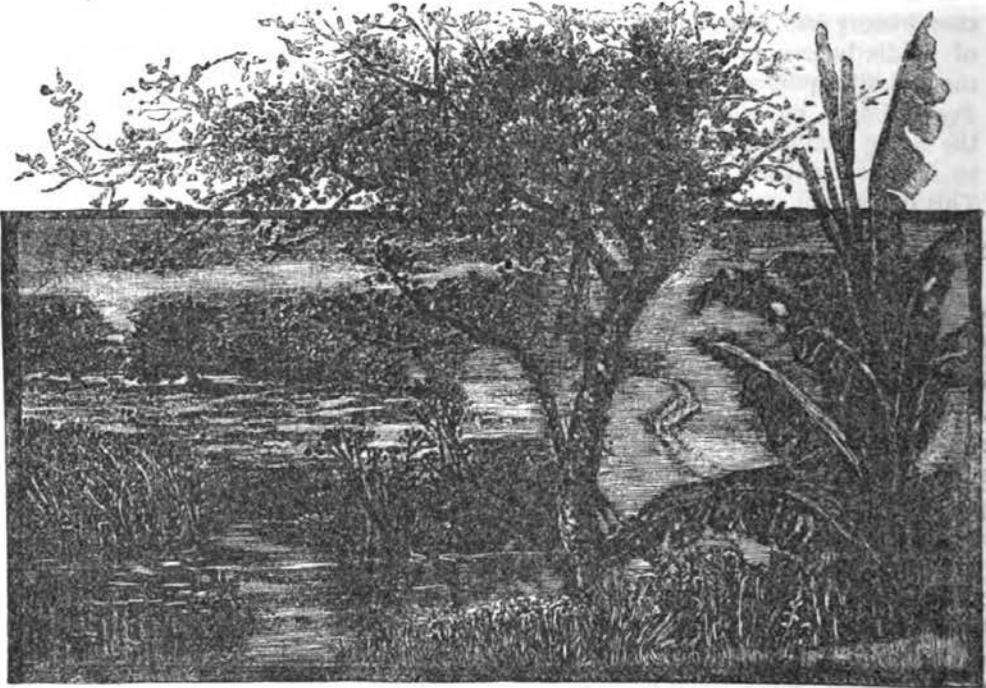
A SPRING OF THE SAN PEDRO.

commanding general is a beautiful park of several acres, with shrubbery, trees, walks, and fountains. Most all the houses are of white blocks of stone. Some of them are like beautiful palaces, but often you see side by side with them, homely hovels with their wide-open doors. These are the dwellings of the real natives—those left of the "feeble race giving place to the strong one." There you see beautiful, black-eyed, olive girls, full of life, dark and wrinkled matrons, and men with coarse, coal-black, straight hair, shining under their broad-brimmed woolen hats, always smoking cigaritos. There are three large public squares, and a grim old stone cathedral as large as any in the United States. "Every day precisely at

noon the great cathedral bell tolls in San Antonio, and every Mexican within the sound of it takes off his hat and stands bareheaded until it ceases tolling."

Some of the streets are narrow and badly paved, but they are so laid out that many of the houses have a garden extending to the river bank, and with a bathing-house which is in constant use. The Mexicans seem to spend half their time by the water. Notwithstanding the narrow streets, the two rivers and their luxu-

two in the city, the San Antonio from a hundred, two miles above the city." You see the fountains of San Pedro welling up in a grove of majestic elms, where are rustic chairs and benches. There the city's gayest crowds pass the pleasant summer evenings, often joining in the promenade or dance. Some of the Mexicans that you see in the waltz and quadrille are of the purest Castilian blood. The ladies are often very beautiful; their sweet voices and graceful dancing attract



SOURCE OF THE SAN ANTONIO.

riant foliage make the city very beautiful to the eye. A bath in their clear, sky-blue water, always of an agreeable temperature, is a great luxury.

The San Pedro Spring is a wooded spot of great beauty, only a mile or two from the town, and the San Antonio Spring is one of the rarest gems of the natural world. "The beautiful moss, the shining pebbles, the sweet seclusion, the glowing sunbeams, the overhanging foliage, make it one of the loveliest places of resort. Both of the rivers leap from the earth in gigantic fountains, the San Pedro from

the attention of admiring strangers. All the Mexicans love to dance at all hours and all seasons. It may be truly said of them that "their genius lies in their heels."

In San Antonio one sees a great variety of races, costumes, and buildings. The San Antonians say people are there from every race in the world, except Laplanders and Esquimaux. You may meet in one morning a bronzed giant of the Bedouin desert, a coal-black Australian, and a "Greek from the Acropolis" will repeat to you Homer's verse at San Pedro's

sparkling fountain. There is a mingling and effervescence of varied life and tongues, making San Antonio the epitome of the restless energy of the American nation. There gather the best and wealthiest people from Mexico in winter, and the fairest and most intelligent from East and North find here an air and landscape in themselves attracting and refining. Here are the descendants of the best classes of the older States. Here too are found some of the most refined and energetic sons of Germany and Spain, with homes and churches and schools, making as varied and interesting society as any continental city. "Like a torchlight in the midst of a wilderness," San Antonio gathers her "irradiation and opulence" from a vast tributary region. She supplies Texas, west, north, and northwest, with the fabrics they wear, the delicacies they enjoy. "She reaches out her arms into Central America, and Chihuahua, seven hundred miles away, and draws into her lap a flood of gold and silver. She has her levies on every pound of wool, every hide, every nugget of ore, raised, grown or produced in this enormous region.

Every bandit gets from her the pistol, blade, and ammunition at his belt; every ranchero the saddle on which he rides, the covering he wears. Every maiden her silks, slippers, perfumery, and paper."

Not far from San Antonio are the celebrated Comal Springs, said to be so beneficial in a variety of diseases. The Comal many travellers pronounce the loveliest

river in the world. Its waters flow like melted diamonds over a bottom of pearl. You see at twenty feet deep the smallest object on the bottom. In one of the many cliffs overhanging this river is a "cavern with a hall eight acres in extent, illumined with stalactites and great pillars of snow-white. Down through winding caverns this river hath taken its rise; through winding caverns, porticoed, pilastered, architaved, and jewelled, falling over precipices, murmuring along smooth channels, rolling silently through dark pools, pressing upward at last through



AN OLD LIVE-OAK.

superincumbent rocks, this glorious fountain bursts forth."

Beautiful land,

We long to see your hills and skies,
Your vales and fountains too,
And mark your glorious stars arise,
And climb the evening blue.

LYDIA M. MILLARD.

THE Louisville *Courier-Journal* relates the following statement of a lady who witnessed the burning of the State-house of Minnesota: "The fire occurred at night. From a window she watched the flames, and presently observed that the Stars and Stripes were flying above the great dome. The dome was blazing, and the flames

shot up toward the national emblem, creating a tremendous draft, which drew the flag straight upward, but it held to its fastenings and the fire grew nearer and nearer. Just as the flames had attained a height sufficient, apparently, to kindle the bunting, it broke away, sailed upward, and was saved."

ORGANIC CEREBRATION,

OR HOW THE FACULTIES COMBINE.

IN mental character much depends upon the combined activity of the different faculties, and the influence of given groups. Phrenology is the only feasible explanation of these phenomena. When we look at character as a whole, the sweep and average of that character may indicate a man who is gentle, patient, quiet, and loving. We may see him under extraordinary conditions when he will be raspy, rough, insolent, quarrelsome, and domineering.

Sometimes we see men who manifest a pious sympathy and a devout spirit. Perhaps before the week is out, we see them tearing about in anger, talking loudly, and perhaps profanely; and the contrast from their ordinary current of life is a mystery and a marvel.

As eight musical notes contain, by their repetitions and combinations, the whole realm of music; as twenty-six letters in the English alphabet by their combinations make its whole literature, so forty-two faculties of the human mind, already discovered and defined, make and maintain all the variety of character, talent, propensity, and peculiarity which is seen in the different persons whom we meet.

Among a hundred men there may be an equal amount of mental vigor, but it is diversified by the different degrees of strength in the faculties, and by the circumstances which call out different groups of faculties; thus we find the basis of all the variety which exists in human life.

It is said that no two men are alike. Phrenology detected difference in the dispositions of the Siamese twins, whose experience of life had been, in all respects, more alike probably than that of any other two human beings who have ever lived. While they had a common circulation, they had differences of mental development, which gave to each his own individuality; and thus, although men resemble each other, and in many respects

their life may seem to flow in the same channel, yet circumstances will call up peculiar combinations of faculty in each, which will lead them to present traits different from those of any other human being.

Persons sometimes speak to our shorthand reporters, who take descriptions of character from our dictation and write them out, and say, "I suppose you get used to the threadbare story of mental development and find it very easy to report it." Such interrogations never fail to receive the answer, that all the vast variety of characteristics, and peculiarities, and shadings of character, which the reporter has to take and write out in a month or a year, are simply a marvel. We have heard a reporter who had worked three years steadily taking these dictations, say, "that he never had taken a character that did not in some marked peculiarity differ from every other that he had taken."

When mind is studied as a whole and in detail, it is found that there are different groups of faculty; these are spoken of and considered under several heads: First, the Social; second, the Selfish Propensities; third, the Selfish or Aspiring Sentiments; fourth, the Moral; fifth, the Semi-Intellectual Sentiments, or Æsthetical and Mechanical; sixth, the Intellectual, including Perception and Reason. If these different groups of faculties could be equally developed, could possess an equal degree of strength and activity, the character would be harmonious; but in a thousand heads we may not find more than one, or not even one, in respect to which we can not readily distinguish a difference in the development of these groups as compared with each other.

If we speak of the social group as a whole, and find it amply developed, all its faculties in equal degree, and decidedly stronger than the other groups, the character will of necessity be of a social type; that part of the nature will lead, and

everything else will be subsidiary; it will be like one leading mind in a party of persons each one of whom is less strongly marked; the strong man draws the co-operation of others; he becomes as it were the hub of the wheel, all the rest acting subordinately to his will and wish.

Another man is amply developed in the animal or selfish group; that class of faculties dominate in him over the intellect, the moral sentiment, the pride and ambition, the social and æsthetical qualities, and all these will second the purposes and endeavors of that strong selfish nature. In that group the faculties that make war are conspicuous; and how these warlike faculties subordinate the finest intellect! how they arouse the pride, the martial spirit, the sense of glory in that direction; how the social nature clusters around these selfish forces, and gives the basis for that fraternity which exists among soldiers!

In another organization the group of the selfish sentiments, that has to do with ambition, aspiration, and fame, will draw around it the force of character, policy, prudence, tact; will arouse the group to which belong skill and artistic taste and mechanical talent; and the intellectual forces will also be called into requisition to sustain, plan for, and carry out the behests of ambition.

If the groups of Intellectual faculties be most active, the person craves knowledge of books, education, and information; and all the qualities that give force and ambition, that give taste and skill, power to make money, will be called into use to second the purposes of intellect, and to lend a worthy hunger for knowledge and intelligence, for distinction in the world of letters, and to acquire the means for the culture desired.

And lastly, of the groups, when the moral and religious qualities predominate, which are the noblest and highest part of human nature, all the other groups of faculties cluster around and sustain this. Then courage backs heroism, then ambition and the desire for fame are sanctified, then social affection becomes saintly, and intelligence

and philosophy are consecrated to the cause of the highest human conception.

Thus the general framework of character can be viewed, by considering the controlling groups which are constituted in the nature of human development; and if we look out upon general society without stopping to be critical or specific, it will be seen in a company of a dozen people, that one is genial, loving, friendly; he shakes hands heartily, and seems so glad to see people; he lives through the social elements, and to him love and friendship seem the centre of life, and he is known far and wide for his social force, and indeed he is known for nothing else especially. In that company we will see another whose talk is money, business, achievement, overcoming, meeting and mastering difficulties; and if one is wanted for such a vocation or service, he gets a unanimous vote. Another in the same group may have a serene respect for his own dignity, is ambitious for distinction, is known as ambitious for and proud of high associations. Another is its artist, its ingenious mechanist, its man for comprehending and conducting combinations that require skill and tact. Another is the fact-gatherer; another is the reasoner in respect to facts gathered; another still is the monitor and moral guide and director, the one who presides over the ethics and the piety that belong to life and society; so nature, stamping different men with predominant forces, according to the different groups of organs and faculties, will thus assign them to appropriate lines of duty, usefulness, responsibility, and service in the social and business world. NELSON SIZER.

How constantly are we called on in our youth to lay aside now this, now that bad feeling! But what, in fact, are our so-called bad feelings but so many organs by means of which man is to help himself in life. How the poor child is worried, on whom but a little spark of vanity is discovered, and yet what a poor miserable creature is the man who has no vanity.—
GOETHE.

COURAGE.

We can not live upon the cold dead past,
Or what has been. All nature shows
After the wild, wild winds and wintry storms
There comes repose.

If the great king of terrors we call death
Thy idols claim, bow down thy head ;
But listen to the still small voice within—
They are not dead.

For still the eye of faith can almost see
Their blest abode, and hearts can feel
Their loving presence, when with yearning deep
In prayer they kneel.

Oh then look up, say not within thy soul,
"All hope has fled." The sun will shine ;
New hopes, new loves, new aspirations high
Can still be thine.

Oh curse not fate, or struggling in the dark
Thy boat unman ; keep calm and still,

Blind patience can be thine, if nothing more
Thy soul can fill.

Then when the work of patience has been wrought,
The trial past, thou'lt know through all
" 'Tis better to have loved and lost
Than not at all."

For if we can but turn to highest use
Each throb of pain, we learn to know
Our strength and weakness, and for others feel
And wiser grow.

Perchance when passing through the deeps ourselves
We blunders make. When calmer grown
Let us remember damning other souls
Will not atone.

They may be now just where ourselves have been :
Struggling for life ; do them no wrong ;
Lend them a hand, 'twill make thy life
More sweet and strong.

DORA A. PETERSON.

MAN IN GEOLOGICAL ERAS.

THE earth is but a microcosm. This orb freighted with life, forms, and conditions, presents to the mind of man an endless variety of phenomena. These phenomena are all normal results of efficient causes ; else, we would have no clue to their solution, and had been doomed to total and helpless ignorance. Thus, a man with a pulse beating seventy-two times in a minute, and with sixteen regular respiratory processes in the same time, could not take these phenomena as evidences of health. Moraines, boulders, and parallel grooves in submarine rocks, and in the cliffs of Glen Roy, Scotland, would not present to us the evidences of glacial action.

But the laws of nature are immutable. Cause and effect are inseparable. No particle of matter is exempt from them. Then, to examine and comprehend all the forms, conditions, and properties of our material surroundings, though as easy as talking prose, is called scientific research, and the knowledge thus gained is called Science. Thus, if we study the movements of the earth, and its relation to

other planets, it is called Astronomy ; if the form of the earth's crust, and the positions of its strata, it is called Geology ; if its elements, and their properties, it is called Chemistry ; if the causes of material phenomena, it is called Natural Philosophy ; if the classification of animals, it is called Zoology ; if we study animal structure, it is Anatomy ; and if we study man's mental and spiritual nature, it is called Psychology.

The investigation of the present subject, so far as it pertains to our earth, can proceed only by importuning the allied sciences of geology and chemistry. The former illustrates the position of matter, and the laws governing its locality ; the latter has to do with the composition, and the laws governing the properties of matter. In geology we examine cosmological masses ; in chemistry we experiment with elements, molecules, and atoms. It was about the same time, and near the close of the last century, that these two sciences began to be understood. We owe much to Rey, Lavoisier, and Geol, for our knowledge of the three

important principles in chemistry—oxidation, definite proportions, and the union of chemical and electrical laws.

Coincidentally, geology was being taught in England, by Smith; in France, by Buffon; in Scotland, by Hutton; and in Germany, by Werner. The first two reasoned inductively, the latter two deductively; hence, as I conceive, arose the errors of the latter, as geology is eminently an inductive science, in this, that we observe first the effects, and reason down, or back to the causes. But reasoning deductively, Werner referred all the changes through which the crust of the earth had passed to water; while Hutton referred them all to fire. Clearly those changes are the effects of causes, some of which are aqueous and others igneous.

In 1807 the Geological Society of London was formed, and a quarter of a century afterward followed the very able works of Lyell and Murchison, which placed geology on a substantial scientific basis.

Sir Charles Lyell was the first to conceive the idea of classifying the tertiary strata with reference to the ages of fossilized shells, and naming them in this order, beginning with the newest or last formed: Recent or Post-Pliocene, Pliocene, Miocene, Eocene; and still proceeding downward, the strata are named in this order till we come to the lowest: Cretaceous, Jurassic, Triassic, Permian, Carboniferous, Devonian, Silurian, Cambrian; and since that we now have the Laurentian and Azoic.

One of the most superficial or recent formations are the Danish peat-mosses, which vary from ten to thirty feet in thickness. "In this," Lyell says, "at various depths are found the trunks of trees, especially the Scotch fir (*Pinus sylvestris*), as much as three feet in diameter. This tree is not now, and has not in the range of history been, a native of this island (England), and will not grow here now when transplanted. But it grew here within the human period, for Steinstrup found, and removed with his

own hands, a flint instrument from beneath the trunk of one of those pines."

The Scotch fir-tree, now extinct in that region, was followed by several species of oak (*quercus*) appearing successively at higher levels in the peat, and these in turn have been almost supplanted by the beech, which has been indigenous to that locality as far back in time as history extends. And yet, all the land and fresh-water shells, and all the mammalia found in Danish peat, are of recent species. So we can begin to learn something of the age of a species.

The great antiquity of man is further attested by the chronological succession of materials used for making implements, and by the rude character of the utensils. These periods are called successively the ages of stone, of bronze, and of iron. The age of stone, as we have seen by the flint implement found under the trunk of the fir-tree, coincides with the period of the first vegetation in Denmark. The age of stone was succeeded by the age of bronze about the time the fir-tree was supplanted by the oak in that region. These two ages passed, and were succeeded by the iron age, and the beech-tree before history began.

Flint implements were recently found near the Seine, in the vicinity of Paris, imbedded in gray diluvium, twenty feet below the surface. In the cavern of Arcy-Sur-Yonne, human bones have been found with the bones of extinct quadrupeds. Flint tools have been found imbedded with the bones of the rhinoceros and the hyena, thirty feet deep in gravel resting on the chalk at Abbeville, Amiens, and other points along the valley of the Somme.

In a cave near Torquay, called Kent Hole, the bones of extinct mammoth and flint tools of a very antique type were found mingled together in a stratum; above these were human remains, all in a matrix of red loam, and covered with stalagmite. In the Brixham limestone are caverns in which were found in a floor of stalagmite the humerus of the *Ursus Spleneus* (cave bear), and still under it

various flint implements; here, again, it is clear that man lived before the cave bear, which is now extinct. On the banks of the Meuse are the caverns of Engis and Engishial, both containing the bones of man and various extinct species of animals.

Many more evidences of the antiquity of man might be adduced, but already enough, I think, has been presented to show that he has outstripped most of the species of animals in the race of life that may have come into existence with him. Geology and archæology have taught us that man far antedates history, and was contemporary with many species of animals known only by their fossils. That he roamed along the banks of the Somme, Thames, Clyde, Rhine, Seine, Mississippi, and the Po, and scattered stones rudely fabricated by his hands into utensils, as early as the Pliocene period, and when the beds of those rivers were 100 feet, and some of them 1,000 feet above their present level, there is no reasonable doubt.

The great and varying depth at which stone tools have been found in the same locality, shows that the stone period was ages in duration. Finally, man became enlightened enough to work copper and tin into bronze, and this metal was used for making weapons at a time anterior to the founding of the Roman Empire.

Geologists calculate that it required thirty thousand years for the peat in the valley of the Somme to grow. Yet under this, and resting on the chalk, is a stratum of gravel containing stone implements. Fine canoes were found twenty feet deep under one of the principal streets of Glasgow; evidently that ancient city stands on ground which in pre-historic times was the bed of the Clyde. In the valley of the Nile a brick was found at a depth of sixty feet, with the name of the Egyptian god, Amen Ra, inscribed on it. Another brick was found in the delta, which, according to Lyell, must have been burned 30,000 years ago.

Let us come nearer home and we find in the valleys of the Mississippi and Ohio

rivers, numerous monuments, mounds, and kitchen-middens with various other geological and archæological evidences which indicate that many ages ago this country was inhabited by a preceding and better-informed people than the Indians, whom we call aborigines.

Still further back in time, still deeper in the earth's crust, are strata, or rather beds of fossil shells mingled with sand which represent the older and newer Pliocene periods. In England these beds are called crags. Proceeding downward they are named in this order: Norwich, Red, and Coralline. The last-named crag being the oldest, its formation may date as far back as the Miocene period. Certain it is, that it is formed of shells of a southern species of testacea, and tells of a warm period preceding the glaciation. The Red and Norwich crags are composed of shells indicating a lower temperature.

These crags in places rest upon the chalk, and are on a level with the subterranean forest of Cromer, in which the stumps of large trees are standing as they grew many ages ago, interspersed, too, with mammalian remains. Next above this are boulders, clay, and erratics, some of which are eighty feet thick, carried there by icebergs during the glacial period. Next glacial drift, then strata of gravel, and next the surface of the earth with soil and vegetation.

It may be instructive to the student of geology to know that the chalk strata referred to are in many places 1,000 feet thick, and composed of fossils of marine infusoria,—proving that all the region of its extent, which embraces most of Europe, Asia, and North America, was untold years ago an ocean. Beneath this still is stratified rock more than twelve miles thick, and yet, fauna and flora, that is, the remains of animals and plants, exist still below this.

Now, more of the glacial period to which allusion has been made. Glacial is from the Latin, *glacies*, which means ice. There have been evidently three glacial periods, in which all of the frigid and temperate zones have been enveloped

in seas of ice. The first of these glacial periods probably came about 240,000 years ago, and the whole time of their duration could not have been less than 160,000 years. During the first of these periods the land was upheaved, so that the mountains were higher than they are now. In the second period a submergence came, so that, according to Prof. Ramsay, the land was 2,300 feet lower than it is now. Then the tops of the mountains peered from the ice-clad ocean as clusters of small islands, presenting the appearance of an archipelago. And lastly, the boulder drift was dredged out of the valleys by glaciers.

The chain of mountains called the Jura presents many moraines and polished rocks, which, according to the high authority of Lyell, were transported by glaciers from the Alps, fifty miles across the valley of Switzerland. The same authority states that glaciers have carried granite from the Andes to the island of Chiloe, which is 25 miles from, and extends 100 miles parallel with, the coast of Chili, and that both the island and the Andes are undergoing a gradual upheaval. Thus, the Andes may rival the Alps, and the island of Chiloe may in time become higher than the Jura. The same process may in time fill up the channel between Chiloe and the shore, so as to form a valley just as the valley of Switzerland was formed. These gradual upheavals and recessions of the earth's surface are doubtless due to volcanic action, or to the alternations of heat and cold.

Now observe the following deductions from the foregoing premises. It must require a vast lapse of time for any animal species to become extinct. It is certain that man coexisted with some of the extinct mammals. Further, the animals having the lowest organization are most persistent in their type, and therefore the life of any species of testacea is longer than that of the higher orders; and yet two-thirds of the fauna of the miocene period are extinct. Molluscous fauna have not been perceptibly changed since the glacial

period, and yet the fossils and works of man have been found in the same matrix with extinct molluscous fauna. It seems conclusive then that man must have inhabited the earth for an immense lapse of ages.

MAN IN HIS ZOOLOGICAL RELATIONS.

In a treatise on "General Pathology," which was written in 1866, and before the "Origin of Species" by Chas. Darwin appeared, I used this language: "Organization is not limited in development by the arbitrary classification of species. The classification of organic bodies into species is convenient as expressing a general idea of their degree of organization, but it is far from definitive. It is a common error to suppose that all of any species of plants or animals are equal in organization. There are various degrees of organization in human species, and so of all the species of the lower animals and plants." The various species marked upon the ascending scale of the organic series are not so many permanent types, but evidently the results of transmutation. The lowest species of man is anatomically and zoologically further below his cognate superior than he is above the Chimpanzee. In former times naturalists classed the Chimpanzee, Gorilla, Ape, and Lemur as quadrumanous, that is, having four hands, instead of two hands and two feet as man has. Huxley has endeavored to show that their feet are precisely like man's as well as their hands, and compared with hands possess the following distinctive characteristics: "1. The arrangement of the tarsal bones. 2. By having a short flexor and a short extensor muscle of the digits. 3. By possessing the muscle termed peronæous longus." They all possess thirty-two teeth as man does, except the lemurs; American apes have thirty-six teeth, and in this they are a grade lower than the oriental species. The orang is further below the gorilla than the latter is below man. When man and the primates were found to be constructed homologously, muscle for muscle, and bone for bone,

and that some of them, as the chimpanzee, possess anatomically complete hands and feet as we do, it was urged by Owen and others that cerebral differences exist, which present a lasting hiatus between the genus *Homo* and all the Simian family.

The supposed peculiar cerebral structure suggested as characterizing man alone, was that of the posterior *cornu* of the ventricles, and the small *hippocampus* of the cerebral hemispheres; and that the hemispheres overlap the cerebellum and the olfactory lobes. Lyell says there is a remarkable resemblance between the chimpanzee brain and that of the human in everything but in size. M. Gratiolet, a very high authority on the subject, says: "The convoluted brain of man, and the smooth brain of the marmoset resemble each other by the quadruple character of a rudimentary olfactory lobe, a posterior lobe completely covering the cerebellum, a well-defined fissure of Sylvius, and lastly, a posterior horn in the lateral ventricle. These characters are not met with together except in man and the apes." Since the brain in the higher animals is found to correspond in most if not all its parts with the human brain, it remains to notice that from the lowest ape to the best organized human, the cranial capacity is found to increase gradually, and not in an abrupt manner, as if nature had suddenly

become lavish in her bestowal upon the grade of animals called human. Thus, the highest ape has a cranial capacity of 25 cubic inches, the lowest race of men 62 inches, but there are individual examples below this, notably in idiots, while the highest cranial capacity is 114 cubic inches. Hence we see that the absolute difference between the largest and the smallest human brain is much greater than that between the smallest human brain and that of the gorilla. It seems to me that the ape was made in the image of man, or he attained his present form by progressive development.

Psychologically, man is to the lower animals precisely what is indicated by his zoological relations. Zoologically, man has the exact organization of the primates, but in a higher degree. Psychologically, man and the lower animals have similar mental attributes, with perhaps a few added elements in the case of man, but he possesses them in a higher degree because of his higher physical organization.

Opponents of the Darwinian theory may prate about a traditional or fabulous genealogy, but is it not better for us to consider ourselves as advanced from the cryptogamia up to our present development than to have degenerated from a high and perfect state of being, and still in the decline?

C. L. CARTER, M.D.

SAVORGNAN DE BRAZZA,

THE EXPLORER AND DIPLOMAT.

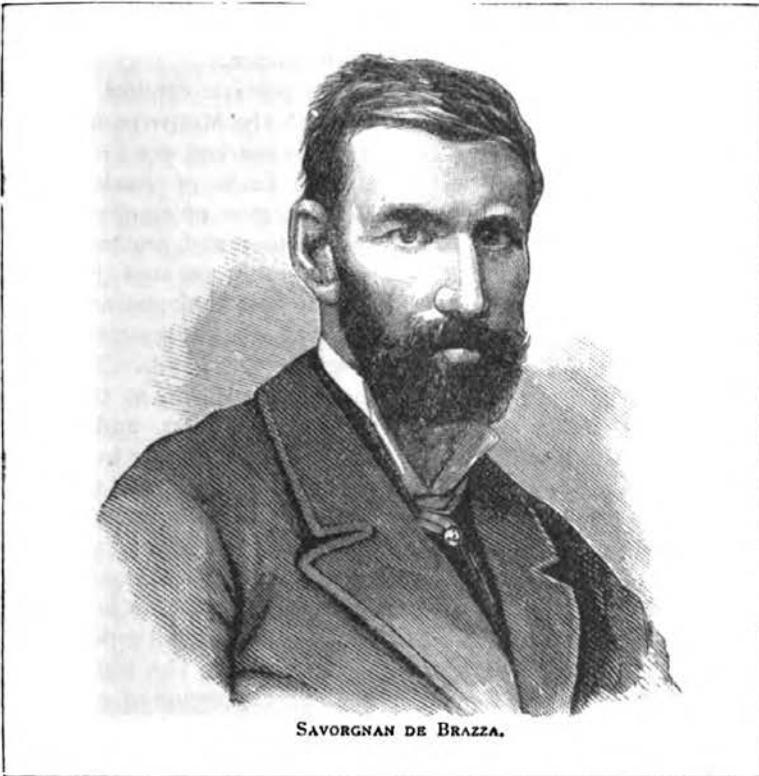
THE world is quite divided up, Jupiter is reported to have said once to a classic poet of two thousand years ago. But if one should say now, "There is no more room," who would believe him? The geographer certainly not, for there are large areas of our globe which are not yet bounded by the colored lines indicative of exploration. But in late years national emulation, politics, and commerce have greatly extended the

areas of civilized settlement. Political ambition would seize upon every little spot of earth, and emphatically insist upon holding possession with the aid of the breech-loader and the gun-boat. The explorer unites in one person usually the characteristics of two persons, the geographer and the diplomat, with more or less success to be sure, but generally of necessity.

In Savorgnan de Brazza we have a suc-

cessful representative of this double character, and one deserving, although a comparatively young man, golden spurs for his success. Peter Graf Savorgnan de Brazza was born at Rome, 1852. From the time the Astronomer Secchi cast his eye upon the young man and helped him to a desk in a Parisian school of nautical science that was in clerical hands, his fortune was made. From a Roman, the young man became changed to a French

of the expedition Brazza pressed up the Ogobay. He had at that time no intimation that Livingstone's Lualaba could turn out to be identical with the Congo, for because of the great water areas, and the powerful current of the Ogobay, the Lualaba might have appeared as an upper branch of the Ogobay. The Ogobay, however, showed itself to be an independent stream; after the falls of Pubara were passed, Marche and Ballay with-



SAVORGNAN DE BRAZZA.

marine. He served on shipboard from 1868 to 1874 in the North Sea, and on the coasts of Algeria, America, and South and West Africa. The year 1875 was specially full of significance for the adventurous officer, for then he undertook an exploration of the Ogobay River, on whose course the French had possessed a station for a considerable time, for the purpose of ascertaining its fitness as a means of communication to the interior. Associates for the work were found in Balay, Marche, and Haman. At the head

drew from the expedition, and Brazza was left alone to push on amid fearful trials and exposures; which he did, and in 1879 succeeded in reaching the neighborhood of the sources of the Ogobay, and discovered, besides, two navigable streams, the Alima and Licona, which belong to the system of the Congo. The Geographical Society of Paris rewarded his discoveries by voting a gold medal to the bold traveller.

The iron constitution of the sailor withstood the strain of the expedition on

his physical strength; and in 1880, he organized a new expedition up the Congo, with the object in view of ascertaining the practicability of connecting the water line of the Congo with that of the Ogobay by means of a chain of stations. The brave man succeeded in this, and also made an exploration of the country of the Upper Ogobay, besides negotiating a close treaty with the native prince, who agreed to insure to French trade a preponderant importance in that region. While engaged in the effort to secure special trade benefits in the whole territory of the Congo for his adopted fatherland, Brazza came in collision with Stanley, and a small word-and-pen battle ensued, ending, however, in peace between the two explorers. The negotiations of Brazza with the Bantu Prince of Nakoko on the Upper Ogobay had high political significance to the French Republic, especially as the prince ratified the treaty, quite contrary to expectation, and the gun-boat *Sagittaire* was ordered on the Congo. Brazza was made Officer of the Legion of Honor. De Lesseps, however, treats the brave man almost too academically when he says "that in this son of a Roman, France welcomes a representative of those qualities which are capable of the grandest results: warmth of soul, perseverance of will."

For the better understanding of the contest between Stanley and Brazza, and what came of it, we may consult what appeared in relation to it in the report of "The African Association, and the Committee of Investigation, of the Upper Congo. . . . By one of the Associates," which was published in Brussels, a year or so ago. Stanley appears therein principally as the agent of a Brussels society that had been formed in 1878, with the capital of a million francs, and which has the same object substantially as the International or African Association. Both societies, the "Association" and the "Committee," allow to the French branch, upon the realization of its purpose to establish stations upon the Ogobay, a sum of twenty thousand francs; but

"M. de Brazza, charged . . . with founding these stations, has adopted other views, and planted later the French flag in the localities known to-day by the names of Franceville and Brazzaville."

From this and other statements the opinion was current in Belgium that Brazza had been unfaithful to the company that supported him, and there was for a time much bitterness of feeling toward him; but later it appeared that there had been political interference, and the explorer's treaties on the Congo were made a sort of game of chess in diplomatic circles.

The portrait exhibits an organization in which the Motive temperament is very strongly marked, yet in association with a large brain of marked peculiarities. He is a man of emphasis and decision, yet cautious and prudent in a high degree; ambitious and hopeful, with a tendency to frankness and candor. The forehead shows sagacity with superior judgment of details. The organs over the eyes, especially at the centre of the superciliary ridges, and at the median line are extraordinary in development.

For the profession of the engineer, and in fact any vocation that employs the faculties of Order and Calculation in connection with the reasoning, M. Brazza is admirably fitted. He is inclined to persist in whatever he undertakes until it is accomplished. The features are strong in their expression of earnestness, thoroughness, and prudence. He is not specially sanguine, or cheerful in disposition, but confident in the results of practical effort. He believes in the power of application, and is content to abide the event of patient industry. Want of success may cast a cloud over his feelings and render him somewhat moody or reticent, but we think it would not relax his grip upon the final purpose of his endeavors.

FROM THE GREEK.

If thou wouldst something noble do,
Some line immortal trace,
Then gather all thy greatest strength
Into the smallest space. L. M. M.

PRETTY TALES DEVOID OF TRUTH.

UNDER the above title the London *Times* exposes in the following caustic style the myth of the Lady Godiva, and indulges in a fling or two at other favorite folk-stories:

"The legend of Lady Godiva has already received some severe treatment at the hands of Mr. Freeman; and now 'A Lineal Descendant of Leofric and Godiva' selects the occasion of the Coventry procession as an opportunity for demolishing the story. The good people of Coventry, by way of keeping green the memory of their benefactress, employ a lady to ride through their town attired 'in fleshings.' Whether this attire is decent or such as 'would not be tolerated upon the English stage' is alien to the question of historical accuracy, although a lineal descendant of Lady Godiva may be pardoned for referring even to the subject of decorum with some warmth. Our correspondent goes through the agonizing process of showing in detail that the procession which is to take place to-day has no origin in fact, but only in the fertile brains of chroniclers. The earliest chronicles, he says, are silent about the fabulous ride; and it makes its first appearance in quite a different form from that which it has assumed in later times. The populace of Coventry, so far from being notified to keep house, as Mr. Tennyson sings and tradition now relates, were assembled to view the spectacle: so that the 'low churl, compact of thankless earth,' who paid for his treachery by the loss of his eyesight, must be accounted mythical.

"But even these early versions, it seems, are fabulous. Our correspondent admits a Lady Godiva; but he disallows a Coventry in those days. There was no town through which Lady Godiva could have ridden, or anything pertaining to a town, save, perhaps, the cluster of houses which may have grown up around the abbey completed in 1043 by her devoted husband, Earl Leofric. The beautiful and virtuous Godiva endowed this abbey with

all her wealth, in such wise that she fairly 'denuded herself of all her personal property.' If these last words are to be taken as indicating the origin of the modern tale of Lady Godiva and the 'grim Earl,' her husband, a number of instances suggest themselves in which metaphor has been the parent of myth. Leaving aside familiar examples drawn from classical mythology, we may recall the story of the yacht-owning peer who was reported to have been so enraged with a presumptuous aspirant to the hand of his pretty daughter that he threw him out of his yacht; a report which proved to be a development of the perfectly true statement that he 'threw him over.' At all events, the legend does not appear able to stand the ponderous criticism of our correspondent, who breaks his historical butterfly upon the wheel in the true spirit of a Niebuhr flaying Livy, or a Bentley demolishing the Epistles of Phalaris.

"The pretty tale of Godiva, we fear, must be added to the list of those which have fallen victims to the modern spirit of skepticism and critical investigation. One by one the romantic chapters of history, those which used to enchain childish fancy, and form the landmarks of childish knowledge, are being lost to us forever, except as by-words of credulous ignorance. Once they were long-established beliefs which no one dreamed of assailing; they were enshrined in the pages of Mangnall and revered accordingly. To those persons, be they of Coventry or any other place, who bewail an assault upon a favorite legend, the only consolation to be offered is that, in Homeric phrase, many and better traditions have died ere this one. The kings of Rome perished a long time ago by the pen of Niebuhr, and they have been killed over and over again since the great historian's time. Homer has not exactly forfeited all claim to an individual existence under the attacks of Wolf and his followers, but he has been sadly compromised. Æsop has not escaped, for it is

now the fashion to maintain that there never was such a person, but that he only afforded a convenient name under which to group the composers of ancient fable in general, although, by a curious piece of irony, Sir George Cornwall Lewis, one of the greatest of historical skeptics, edited a spurious collection of Æsopic fables, palmed off on the world by an impudent modern Greek, as if Æsop were a genuine personage, and these fables were the genuine production of Æsop.

"To come to more modern times, the current story of Joan of Arc has been a dozen times refuted and as often reasserted. The historical career of William Tell is indeed melancholy, for he has been found out by the critics, instead of a patriot peasant, to have been an inn-

keeper and a horse-dealer; but perhaps these critics may be suspected of Austrian leanings. The romantic attachment of the Princess Pocahontas to Captain John Smith is demonstrated by recent historians to be indebted for much of its romance to the imagination of Captain Smith himself. What need is there to allude to the story of the Vengeur, or to the abundant parallels of that tale which are found in the annals of every country, and which have been found not altogether proof against critical investigation? Even the Ten Commandments themselves, thanks to the enterprise of M. Shapira, are awaiting the verdict of the learned. No wonder that a poor little local tradition should have shown itself unable to withstand the penetrating fire of modern critical artillery."

SUPERSTITIONS CONCERNING PLANTS.

THE fig was the only material vegetable growth in the garden of Eden of which we have any record, and the



THE FIG, (*Ficus Carica*).

leaves only are mentioned. They furnished our first parents with garments, a knowledge of the need of which came to them with the consciousness of disobedience and sin.

"They sewed *fig-leaves* together, and made themselves aprons." It was only by slow and tedious processes, that man devised means to disengage the tough fibres of plants, and fashion them into woven fabrics for clothing.

We may vainly question if the fig was the only fruit of Eden that also grew in the outside wilderness. We know that our most delicious vegetable products are often poisonous when found in a wild state, and only by long cultivation do they become nutritious and inviting.

The fig—*Ficus Carica*—was not found wild on the Western Continent, and this fact alone would point to the Eastern world as the birth-place of the human race, for there the fig has flourished in a wild state from time immemorial. The family is renowned both in legend and history. Here we find the *Baniam*, with its thousand trunks clasping the earth from one parent stem; also the Bread-fruit, which affords sustenance to so many of the Sea-islanders. The Cow-tree, which yields a plentiful supply of nutritious milk, and many other species producing pleasant and healthful fruits, are found here.

The fig belongs to the Natural Order, *Urticaceæ*, or *Nettleworts*, and if we make the acquaintance of its more re-



THE MISTLETOE.

mote kin, we shall find some of them possessing deleterious and deadly qualities. The celebrated Bohon Upas, once believed to exist only in a remote valley in Java, was ranked in this natural order. Its habitat was paved with the bones of criminals sent hither to procure the poison. Birds fell from the air dead, in attempting to fly over, and no animal or plant could live within a wide circumference. It is now believed that its powers were exaggerated. In the Asiatic islands the nettle tribes assume their most virulent character. Also allied to the fig and the nettle, is the *Manchineel* of Central America, the exhalations of which are fatal to those who rest in its shade. When the railroad across the Isthmus of Panama was in progress, at a certain section of the survey, the men employed died at the rate of a man for every foot of the way completed. The tired laborers would lie down in the shade of these trees for a noonday lunch and nap, and the result was death. Botanical investigations pointed out the evil, and the poisonous trees were destroyed in advance of the workmen, and the deaths at once abated. The poisonous qualities are due to strychnia.

The properties of plants were known measurably, long before the historian appeared to record them; yet even the prehistoric nations have left in rude tradition,

and ruder sculpture, some memorials of the plant. In the Indian Veda we find mention of the sacred *Soma*, the juice of which, obtained by certain mystic processes, was offered to the gods.

According to Scandinavian lore, the first man and woman were formed from two sticks—an *ash* and *elm*—which were cast ashore by the waves. A mighty evergreen ash-tree—the tree Ygdrasil—shadowed the entire earth, and towered high above Asgard—heaven. It was watered by the Fates, and its properties were many and terrible.

But leaving the region of myth and fancy, we would mention the Palm-tree as belonging to a family renowned through all historic time. The Hebrew prophetess dwelt under a palm-tree, and there judged the people, and across a section of the Mediterranean Sea, whose waters swept from Palestine to the Pillars of Hercules, the classic and polytheistic Greek strove in his regal games for the victor's wreath of palm. By that wondrous river whose banks to this day are paved with palaces antedating history, the old Egyptian astrologer performed his mystic rites under branches of palm.

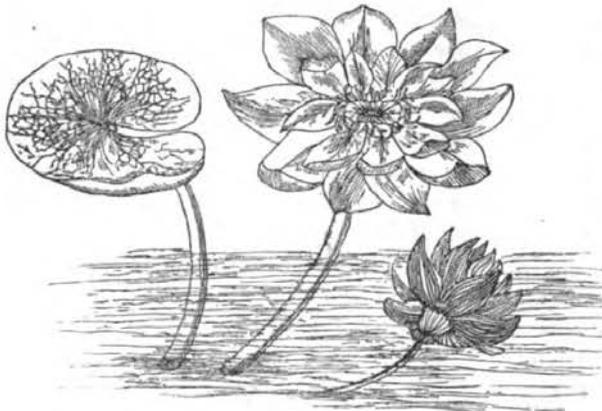


TOBACCO.—*Nicotiana*.

In the temperate zones the *oak* has long held a fateful pre-eminence. In the shadow of an oak-tree, on the plain of

Mamre, Abraham entertained the angel of the Covenant, and later, Jacob buried the idols brought from Mesopotamia under an oak-tree in Shechem. In the north, the Druids of Britain—a cruel priesthood, yet in advance of the age in learning and culture—performed their religious rites in groves of oak. Their name is from the Celtic word *Deree*, signifying oak. Among the southern contemporaneous nations, the hero of a humane deed was crowned with oak-leaves.

We here trace a common reverence for an identical object, in nations of widely dissimilar customs, and in eras separated by long intervals of time. The fire-worshipper from the plains of Chaldea



THE LOTUS.

spreading a feast for angels under an oak-tree; the Celtic priest, in his far northern isle cherishing his groves of oak, and the Greek hero performing an act of mercy for a chaplet of oak-leaves. Did not these all imbibe from some common and remote source a reverence for the oak-tree?

The mistletoe, so honored during the Christmas holiday season, was, if possible, even more prominent in the Druidical rites of our ancestors than the oak.

This plant—*Viscum flavescens*—is a true parasite, found inserted in the bark of old trees, of various kinds, and derives its nourishment from the juices of the tree to which it clings, and the air alone.

In the Norse cosmogony, the mistletoe attained to a fatal prominence as being

the instrument of the death of Balder the Good, and the overthrow of the heavenly empire. The existence of Asgard, the Norse heaven—with all its dependencies—rested on the life of Balder, and a stolen glance in the book of destiny revealed to Odin the terrible fact that Balder would be slain. Then every created object swore not to furnish the means of Balder's death. Earth, air, fire and water, and all of vegetable life entered into the solemn alliance. An insignificant parasite—the mistletoe—was overlooked, when Frigga called on Nature for this vow. This was probably due to its lowly, dependent condition. It had never maintained its own individuality entirely, being

lost in the fibres of the tree to which it clung, and Loki, the spirit of evil, noting the fact, formed a sprig of mistletoe into a dart, and when the gods in sport were hurling their weapons at the invulnerable Balder, the vengeful Loki placed his weapon in the hands of the blind Hoder, and slyly directing his aim, Balder was slain, Valhalla was destroyed and Asgard overthrown. Only a narrow strait separates myth and history in the old-world lore, and it is often bridged by

intersecting lines.

In the Western world, the agave, or aloe, was very prominent among the early nations. Modern researches indicate that early in the Christian era the Chinese visited America by the way of the Aleutian Isles, and journeying southward, penetrated nearly the entire length of North America. These explorers called the new country the "land of fusung," the Oriental name of the aloe, owing to the abundance and the variety of the species found growing in the southern portion of the land. The high-priest of the ancient Mexicans gave aloe-leaves, traced over with sacred characters, to people going among volcanoes, to protect them from the incident dangers. The fibres of the aloe also furnished a

kind of paper used in the days of Montezuma for painting hieroglyphics upon.

The tobacco-plant, another denizen of the Western Continent, has a lively and interesting history. Perhaps no vegetable product ever came into general use under more determined and violent opposition than tobacco. Sir Walter Raleigh introduced smoking into England, and King James met the innovation with his celebrated "Counterblast on Tobacco," but its popularity continued to increase. The Russian Government prohibited the use of tobacco under pain of the knout for the first offence, and death for the second. Turkey also met the new narcotic with equally severe interdictions, and Pope Urban forbade its use in the papal dominions. Nor did this plant escape the ban of the legislators of the land of its nativity. In the Colonial laws of Connecticut we find an enactment restricting the use of tobacco to once in a day, and even then not within ten miles of a dwelling-house. With the American aborigines, smoking from the same pipe denoted friendship and peace.

While botany has but recently attained to a rank among the sciences, even in the days of Aristotle, that sage declared, "There is no plant without a soul," and the Greek philosophers in general believed that vegetation was endowed with sensation, and capable of experiencing pleasure and pain. The Latin poet makes the shrubs growing above the grave of Polydorus utter plaintive cries, demanding that funeral rites should be paid the prince whose dust they held in keeping.

Water-plants enter largely into the su-

perstitions of nations widely diverse in age and character. The Lotus, or lily of the Nile, a plant allied to the *Nymphaea* of the western world, was consecrated by the Egyptians to Isis and Osiris, and was made the object of direct worship, as an emblem of the creation of the world from water. A variety of this plant was believed to possess the property of making those who ate of it, forget their native country.

The double Cocoa-nut of the Seychelle Isles, but believed by the natives to grow out of the sea, was the object of numberless superstitions. The islanders esteemed it a preservative against every form of disease, and an antidote for all poisons.

In following the history of plants and man, we find the different properties of the lower order—from the very fact that the source of their activities was unknown—ministering to the superstitions of the higher. The Spice-islanders plant a clove-tree at the birth of every child, or practised this custom before they were colonized by the Europeans, and in all ages the tutelary deities of forest and grove were deemed the friend of man. When the Druids called the wood-sprites into their dwellings during the rigorous winter-time, by placing their enticing evergreens therein they believed a blessing came with these airy visitants. The most enlightened mind can not watch the wondrous processes of germination and growth of the plant without a feeling of awe and adoration at the silent workings of the Power that calls forth the miracle of vegetable life and growth.

ANNIE E. COLE.

POLITY OF THOUGHT.

TH**E**R**E** is a receptacle in the public heart for all good thoughts which flow in strong and even tides; thoughts that neither overwhelm, nor lull to sleep. The good element that abounds in humanity is ever in need of the wherewith to sustain its vigor. Preponderating over all else, is the necessity to keep the moral

man in the atmosphere where poison shall act only as a medicine to arouse the sluggish vein which empties his nature of past evils or follies. Nitrogenic globules, in a small proportion to the healthful oxygen—in other words, a touch of doubt, or of moral despair—may safely be accepted with the public teacher's thought

of pen or of voice, providing a clean, wholesome presentation of life surrounds the pensive, passive doubt.

Creator and created must ever enter the one same plan or plane of life. The good Giver of all things so arranges and classifies whatever we possess in welfare, that benisons are wrought in every act, and blessings follow along in our paths through darkness. Sublime and beautiful; grand, yet so simple are the aboriginal traditions where man has loved nature truly for itself, and not for what other men have thought of it; we sometimes regret the metropolitan sweep of culture, with the necessary falsities that environ it; but judgment sways with almighty force, and the tides vary only enough to prove beyond a doubt that eternal are the laws which govern and control the destinies of each and every age; that no backward turning can be possible, but onward to the broader infinities is the great unlimited, illimitable earnest of intelligence.

Spread over the surface of one continent are the ancient philosophies that, were it not for the handful of little pilgrims who were nothings where they originated, those philosophies would have been a mass of corrupt decay. They trod upon our Plymouth shores, those despised pilgrims, like so many giant-bearded Solomons who knew no law save in their own strength. Now, broad are those fields of culture on this western side of the sphere; and active are these American brains to do something for manhood and for womanhood that has not been done anywhere in a civilized world.

To grow a mammoth tree a century is not too long. To produce a moral race, two centuries would be short indeed. And from this we may predicate that our country and its populace together have made a strong advance upon the work of cultivating man. While the animalism of the physical structure is being wrought over, it is absolutely impossible to fold him up and put him away in a bandbox, although he is still a little pilgrim. Then, we need only to see what is good for the

pilgrim that is to be the type of moral excellence in the coming century. He must be clothed in the right mind as well as in the right body. He must be an entity—a mind and body in harmony; a healthy-thoughted, muscular being whose nerve-centres are adjusted harmoniously. To produce such without going outside of natural law, the whole alphabet is to be acquired of this age. That is to say, we must learn the first principles of one great law, namely: To own our own minds, and to own our own bodies; to barter neither of them to any living being who would impair them without compunction. To possess ourselves as those of old were required to make the best use of their talents. Better to be born free men than to be slaves. Better to covet our own innate possibilities than to rob another for self's sake. Better to feel as if we were equal to the world, than to hide our deformities and never find courage to mend them in public. Society's customs are but what the individual makes them. Little short of anarchy, if we allow them to control our superior traits of mind or character. But we are law-givers, every one, as well as law-takers; and the equilibrium is sufficiently under our control if we arouse ourselves to execution.

Pride, without prominence; deference, without slave-worship; culture, without despotic *cuisine*—these are the dutiful helpers of any who aspire. Some of our ancient jewels may seem tarnished by the side of modern virtues; but the face of history alone is not the true history of any peoples, save as an indication of the tendencies of mankind from savagery toward refinement. Only traces are visible of that "divinity which shapes our ends," the growing divinity of the universal mind. We have something more beside the barter of our lands, of our silver, gold, and other precious minerals; something beside the architectural cities which rise up to confront ancient Greece, to make our nation great; or, like the horse which has just broken away from the driver and his burden, we shall only increase our

speed to grow reckless of anything excepting to get away from the present. But with the prudence of a little wise forethought we may insure both ourselves and the future; and while independent in our own thought, we may keep in harmony with the world's progress, reaping as we go along with our sickle the advantages and opportunities which every age affords.

Off the platform, the rostrum, the preacher's consecrated desk—down in the pews, the chairs, on the benches, and standing in the rear of the vast auditorium of learning, listening life—there are some of the wondrous teachers, whose names never reach the public ear; whose thoughts never sway the multitude by one breath. Thinkers, who have not tied their views to any fixed stake; brains that can not be bought to do hirelings' work,—of more learning than culture; of greater genius than talent; moulders of those opinions that "get out" by some good angel's righteous theft. These are some of the benefactors of mankind; and few, very few are they of these who do not have to wait until God gives them recognition. Who so grand in the line of teachers as these who toil without encouragement save in their reward of self-conscious earnestness? Who so devoted as these who find no following to spur them on with acclamations of praise? Long and weary years have they been seeking among all men's thoughts for the true and living principle; believing still in God and humanity when a crust is all they can command. It does not help them that such as they have lived and died unrewarded. Nor does it cheer them to know that others' lives and works have been canonized three or four centuries subsequent to death's claims. Why, why not in one's age as well, when the greatest truths we have are applicable to all ages, and are helpers to all peoples and nations?

So sweep the years away; and men and women who have been miraculously great, pass off the humble stage of life unknown. Be we never so humiliated as those who

lived to inspire the same atomic thoughts with our great dead, who are now the standard authors of English literature; yet we may be sure that, hidden in a hovel, starving in a garret, sobbing away existence, perhaps, without sympathy—spoiling their happiness because they can not sacrifice their greatness—are some of these martyrs of the age. Chronicle their names, O ye angels; that they may be glorified as the humble workers in the eternal harvest! These are the silent builders of a century; the beings whose influences steal away into the deepest recesses of the human heart, when it once finds the treasure. These have in store that which the alchemist finds in the hill: the gold of thought that perisheth not. Bring them forth, O my people; lose them not out of your present world. The humbler flowers by the wayside, perhaps; encourage them to grow, and they will beautify your homes forevermore. Sprinkle human kindness about you, and perchance it may fall upon invisible excellence that needs only the sparkle of the fresh dews.

Be ye, O mother of the race, a helper to the child which, unlike your others, seems to be far away in thought, and hears not your bidding. See what is it that maketh man or woman seek solitude rather than public places, every one of ye, my brothers; and the nations shall all be made to rejoice. These are the far-sighted, deep-thoughted men who may bring forth what you need; thoughts that are not stumbling-blocks, and ideas that are not all chimera. Cultivate these people.

ROSINE KNIGHT.

A CONTRAST.—New York City spent last year \$4,000,000 for education. But when the same statistics show that the same city spent the same year \$7,000,000 for its amusements, one begins to feel—as a friend of ours was apt to say—a little dubiousity. But when we further learn that it spent \$60,000,000 for its wine and liquors, who can help hanging the head and blushing for shame?—*Exchange*.

ASPASIA, THE SAVANT.

WOMAN among the Ionians had not that degree of liberty that she possessed among the other Greek races. Among the Ætoliens she could teach; she could reign among the Dorians. But in Athens or Miletus her normal position was that of a house slave. She had no political, civil, or social rights. Her duties were summed up in the words, to remain at home and to be obedient to her husband. While their husbands talked with Socrates, studied with Phidias, sang with Anacreon, and fought with Miltiades and Conon, the wives spun, sewed, took



ASPASIA.

care of the kitchen, and nursed the children. They were allowed no mental culture of any kind, save perhaps a rude knowledge of music. In all the history of the Ionian race no married woman ever made herself distinguished by her attainments in literature, art, or science.

But there was one class of women to whom greater liberty was allowed. These were the famous *Hetairæ*, or "companions," who for more than two hundred years were the leading women of their age. Nearly all of the great men of Greece were associated in one way or another with some of these brilliant Ionian courtesans. They were their slaves, their

masters, or their friends. In their turn too many of these women doubtless pandered to the lowest tastes of their male associates. But in many instances they were elevated and honored by their companionship. They were women of education and culture; they studied all the arts and graces, versed themselves in the new philosophy, and oftentimes showed the strongest attachments. When Alcibiades fell, the victim of Sparta's fears and Tissaphernes' treachery, it was a companion who buried him and shed her tears over his pyre. By their beauty, their accomplishments, and their connections with eminent men, they exerted a commanding influence upon the history of their time. All the prominent female names of the centuries in which they flourished were those of *Hetairæ*.

One of them, Diotima, of Mantinea, was Socrates' teacher in love. Another, the splendid and accomplished Theoclata, was the friend of that philosopher and of Plato and Xenophon. During the epoch of the Persian war flourished Thorgelia, of Miletus, who was successively connected with fourteen different protectors, and who exercised a very powerful influence in political affairs. In Thessaly she secured the favor of one of the most potent native princes, Antiochus, a relative of the Alenadae, and even after his death maintained herself in a princely position. But the most famous of the *Hetairæ*, and indeed the grandest woman of all antiquity, was Aspasia.

She, too, was born in Miletus the glorious, the capital of Ionia, the mother of a hundred flourishing colonies, but Miletus was then the slave of the Persians, and there was only one way for a woman to rise to power or eminence. Her father, Axiochus, was a man of wealth, and young Aspasia was provided with proficient tutors, under whom she made rapid progress in intellectual studies. When very young she is said to have had an ambition and to have chosen Thorgelia as her model. She would be no common

"companion." She sought influence and power, to hold dominion over men of commanding minds, to be the friend of philosophers. Miletus was no place to rise in, and so she went to Athens.

It was a fortunate time when Aspasia arrived at the city of the violet crown. Pericles had just stepped upon the stage, and his genius, his principles, and his ambition promised an era of unparalleled glory to the city that had risen from ashes under Themistocles. The old age was dead, and a new one was being inaugurated. Grace and beauty and polished empressment were succeeding the ruder virtues of the age of Aristides. The brilliancy of Sophocles had taken the place of the grandeur of Æschylus. The type of the age was the graceful Parthenon that towered peerless under the Attic sun on the heights of the Acropolis. Into this world the gifted Milesian flashed with all the splendor of a meteor, and held her power with the permanence of a fixed star. Her lofty and richly endowed nature, her diverse accomplishments, her beauty and blandishments, made her at once a marvel in the Athenian capital. She was mistress of every art, and could converse with equal ease and with irresistible grace upon poetry, politics, and philosophy. For the first time the treasures of Hellenic culture were found in the possession of a woman who also possessed all the graces of womanhood—a phenomenon which all men looked upon with eyes of wonder.

Such a woman could not long remain without influence in a city like Athens. But her aims were lofty, and to no second place would she stoop. She had but one equal in Athens, and that man was Pericles. Besides being the representative of the Alcaemonidae and the successful rival of Cymon, Pericles was dowered with the greatest beauty and the most august abilities. By all odds he was the grandest man of his brilliant age, and surpassed every other man in particular qualities. His silvery and polished eloquence surpassed the fire and action of

Demosthenes. His statesmanship went farther than Themistocles. His bravery rivalled that of Alcibiades. He was a pattern in temperance and sobriety, and his chastity shamed even Socrates. His diligence was proverbial. He never assisted at a festive banquet in his life, and no Athenian ever saw him with his friends over the wine-cup. Grave, serious, dignified at all times, his whole energy and thought were devoted to the service of the State.

This was the man who was captivated by the charms and accomplishments of Aspasia. He was already married and the father of two sons, but husband and wife were ill mated. She was a selfish, spoiled woman, ignorant and uncultivated, and had no reverence for her husband's severe studies and ambitious toils. This complete incompatibility would sooner or later have brought about a separation; it was only hastened by the statesman's growing regard for Aspasia. Pericles' wife was ready enough to listen to a divorce; their marriage was dissolved by mutual consent, and Cleomone soon married her third husband (she was a widow when Pericles took her to wife), while the released statesman brought Aspasia to his house.

He could not marry her, for it was the law of his country that no Athenian could take a foreign woman to be his wife, but never were a husband and wife more devoted to each other. Their connection was not based upon sensual passion or a passing excitement. It was a real marriage, lacking the civil sanction only because she was a foreigner, an alliance of the truest and tenderest affection which death alone dissolved. No husband in Athens was more faithful to his wife than Pericles was to Aspasia. Imperturbable and grave to all others, to Aspasia he was always the tender lover. Plutarch relates that he never left her or came back without greeting her with a kiss. In return, her love and care were the endless source of a domestic felicity which no man needed more than the statesman, who lived retired from all external recre-

ations, and was unceasingly engaged in the labor of his life. In many ways the companionship of this woman was invaluable to Pericles. She had ease in every kind of society, which he lacked, and her influence upon the leading minds of the time was a great support to his power. Her keen, feminine sagacity and her knowledge of men made her of vast service in councils of state. Her accomplishments were the delight of his leisure hours. The loyal devotion of the foremost woman of her age to the man who stood at the head of the first city of the world, vouches for the honor of the "Milesian adventuress" and the superiority of her mind.

Aspasia probably loved both with the intellect and with the heart, and yet perhaps that of her intellect had the preponderance. In her choice not only was her heart satisfied, but her pride and her intellect alike were gratified. She not merely loved the man, but she admired and revered him. Yet surely she must have known what love was, for brilliant as was her intellect, subtle as was her understanding, she could never else have evolved that sentiment ascribed to her by Æschines, the disciple of Socrates. The feminine philosopher desired to reconcile Xenophon and his wife, and after a long exhortation ended her reasoning as follows: "As soon," says she, "as you have realized that there exists not upon earth a better man or a more amiable woman, you will know how to recognize and enjoy the good fortune which has happened to you in common, that the husband has the best of women, and the wife the best of men."

The mocking spirits at Athens eagerly sought out every blemish which could be discovered in the life of Pericles, yet no calumny was ever able to vilify this rare union or to blacken its memory. The comic poets must perforce abuse them as they abused everything else. They termed Pericles *Zeus* and Aspasia *Here*, queen of the gods; and sometimes they were *Heracles* and *Dejonira*. A less pleasing designation was that of *Omphale*

that they bestowed upon Aspasia, intended evidently as a slur upon Pericles for the political influence his wife had over him. But their moral integrity remained unassailed, and it was only when the conventional spirit was startled by some of the bold innovations of the philosophical coterie around the illustrious couple that they dared accuse Aspasia of irreligion. It was easy enough probably to trump up such a charge. The keen intelligence of the Milesian did not allow her to believe in the gross polytheism of the age; and even at Athens if a person ventured to dispute the existence of a hundred gods with morals and passions somewhat worse than those of ordinary human nature, he did so at the risk of his life. Whether Aspasia ever declared her sentiments we know not, but she was on terms of friendship with those who did, and she was accordingly brought before the dicastery. Pericles pleaded her cause, and his eloquent appeal probably saved her life, for it was in consequence of a similar accusation that Socrates was condemned to drink the fatal hemlock.

Aspasia, it is evident then, not only occupied a prominent position, but she played a leading part in the affairs of her time. She seemed to be the director of all that was progressive in Athens, and to have stamped her influence upon all minds. Such a *salon* as she had! Around no other person in the whole history of the world was there gathered so illustrious a coterie. Phidias, the greatest sculptor; Sophocles and Euripides, the dramatic masters; Anaxagoras and Socrates, the philosophers; Xenophon, Plato, Alcibiades, were all her friends, her associates, and her disciples. Socrates called her his teacher, and it is said that she gave Pericles lessons in rhetoric. Half of her usefulness was probably never known. She may have made noble fights in behalf of her sex. One thing we do know, that she inculcated broader culture for women, and urged them to become more influential agents in society. No, Aspasia did not forget her own sex. She loved to discuss art with Phidias, drama with

Sophocles, philosophy with Anaxagoras, politics with Pericles, but she loved, too, to talk with women upon domestic and social affairs. At her symposiums Athenian wives were present, and her influence must have been salutary in many instances. She had an exalted idea of the duties of womanhood, and her goodness, her noble aims, her intellectual abilities placed her in a position where she could do much for the improvement of her sex. Nor did she shirk her opportunities.

We might possibly have had still greater respect for this wonderful woman had she never married after the death of Pericles. And yet we do not know. The Duchess of Marlborough, after her husband's death, when approached by suitors always refused them, saying: "The widow of Marlborough does not humble herself by becoming the wife of any other man." Pericles was greater than "My Lord Marlborough." But society in Athens four hundred odd years before Christ, differed from society in England in the eighteenth century, and Aspasia was a different sort of woman from the fiery, haughty Sarah Jennings. She was eminently practical, and her culture and

learning would not serve to increase any romantic sentiment if she had one. Hers was not a life of dreams or of repinings; she was an active, useful being. So after a proper interval the still beautiful Milesian formed a connection with Lysicles, a grazier, whom she made, if we may believe Plutarch, the foremost man in Athens for a time. She outlived Pericles for twenty years, and when she died left a name that has no superior in the history of Grecian women.

There is more than a doubt that the bust known as that of Aspasia's is not her likeness at all. If it is authentic it does not at least fill the ideal one has of her. It represents an ordinary, fair, complacent-looking woman. Not even have the features that regular Greek outline that characterizes the best types of the race. We have seen a bust of Diana that in our mind resembles what Aspasia must have been, much more than the bust that bears her own name. In this other the face is that of a goddess. After the Greek idea was Aspasia much less? Smile as critics may, I shall always believe it to be Aspasia rather than Diana, or if Diana, it is a Diana modelled from the Milesian.

FRED MYRON COLBY.

HINTS TO MOTHERS ON EARLY CHILD-TRAINING.

COMPARATIVELY few mothers realize the importance of the first steps in the care of a child, for both its physical and mental well-being. They think it should be old enough to manifest understanding before they begin to educate it. That is a mistake. The education of a child begins in its cradle. Sights and sounds unconsciously impress themselves upon its mind then. As soon as the first objects are noticed the first lessons are begun.

Some children acquire ideas with more rapidity than others; they appear to have an intuitive perception that is marvellous to a careful observer. Even the hair of such children is of a finer and more susceptible texture; and therefore while it more readily receives impressions it is the

more liable to receive injury if improperly treated.

It is a good thing to start right. A child properly managed at the beginning of life goes along much more satisfactorily, than one that has not that advantage. Most young mothers are about as ignorant of a child's needs as the babe itself; and hence, having nearly everything to learn, their first-born suffers from a great many mistakes, which the children coming after escape. This has been the case from the beginning and doubtless will be to the end of time.

Almost always if children turn out badly, you can trace the cause to parental neglect, or to ignorance, carelessness, or over-indulgence. It is a great responsibility to have the care of a child thrust

upon one, and to realize that its future state, both in this world and the next, depends almost wholly on the mother. It is an appalling thought to a conscientious and sensitive woman.

I believe that nearly every young mother has a fear that her child will die. It is so frail, so wonderful, so overwhelming, so unlike anything she has ever seen before ! Her own love and tenderness are a revelation to her ; and the depths of her nature are stirred by that tiny being in a manner that she would previously have considered impossible. Every little "baby trouble" that afflicts her child is magnified by maternal love, and her inexperienced heart trembles in secret terror before the unknown. The best way, young mother, to overcome such feelings is to teach yourself to look upon the babe as a sweet spirit loaned from heaven to be loved and cherished awhile : liable to be called for at any moment, and which you must return, none the worse for having been in your possession. That thought makes its life precious, helps you to bear patiently the many little trials, and if called upon to separate, sweetens and softens the parting pang, giving you a claim on heaven itself, "for where your treasure is, there will your heart be also." How many people have suffered all their lives from a dread of that inevitable event, which to a properly instructed mind is a pleasant thought, a beneficent and kindly providence prepared for the world's weary and heavy laden !

Parents are frequently impatient with children because they do not understand matters, or quickly comprehend some hint or sign given at a special moment. A lady once complained of her little girl, who happened to be especially stupid at the wrong moment. An old gentleman rebuked her, saying, "If you had learned as much in every two years of your life as she has, you would be a wise woman by this time." That remark set her to thinking, and she never complained afterward because her child was not able to comprehend as quickly as she did. The child was probably as smart as its mother was

at that age, and nothing more could be required. It was a word fitly spoken and it bore good fruit. In one thing the writer differs from many parents : that is in attributing the troublesome tricks of children to natural depravity. They learn them from others for the most part, and once acquired are not readily overcome. Parents are generally the teachers, unconsciously perhaps, but none the less are they responsible for what follows. For instance, many children want a light in the room to sleep by, and perhaps a watcher to sit by them until they have fallen asleep. Parents sometimes complain that this is such a care and trouble, but say, "My child won't go to sleep alone, or in the dark." Whose fault is that ? Who taught the child that a light could be kept burning while it was going to sleep, or that somebody would sit by its bedside ? An infant would never have imagined it unassisted. The first time it was done taught the child that it was possible, and who can blame it for desiring a repetition of what was agreeable ?

A child that is never rocked to sleep, knows nothing about that troublesome process. Put your child to bed and let it lie there till it falls asleep in a natural and quiet manner. Do not create an unnecessary want.

A child's education in obedience should begin at a very early age, but in a most gentle way ; little by little as events occur. Do not crowd the young mind by telling it what it should not do. Simply tell it what it should do. Do not teach it evil by letting it know that such a thing exists. A babe's mind can not comprehend two ideas at once ; give it the right idea and say nothing about the wrong one. For instance, a lady having a little girl about fourteen months old, was stopping at a house in the parlor of which were numerous objects of art, bric-a-brac, etc. ; and on the marble-slab beneath the pier-glass were a number of bright-colored and beautiful objects, just the things to attract the fancy of a child. The mother knew that on seeing these things the babe would most likely want to touch them.

The natural result would follow: they would be broken. What was to be done? Keep the child out of the parlor, or sit and watch her every moment while there? That would be unpleasant and troublesome both for mother and child. It clearly would not do. Better teach the child to obey. So before going into the parlor she prepared her little mind by telling her she would show her some "pretty things." They were made to look at, but while looking she must keep her hands behind her. That was the proper place for a little girl's hands when looking at "pretty things." She then showed her how to place her hands, and led her to the mirror. There they were, the beautiful little objects. The baby gazed with delight. Once she stretched forth her hand and her mother gently put it back, saying, "Baby must keep her hands behind when she looks at pretty things." She thought she must, and from that time forward whenever she went to look at the objects her hands were placed behind her. That was part of the programme. It was a lesson in obedience: she learned it readily. The mother did not wait until the babe had touched the things and then tell her not to do so, thus trying to eradicate a wrong idea and substitute a right one: doing two things at once. She anticipated the matter and planted the right one before the wrong one had sprung into life.

Many children are afraid to be left alone in the dark. Fear in old and young is a terrible feeling, and children must not be blamed for it, but rather be instructed about the nature of things that may frighten them. The child herein mentioned was inclined that way, and the mother determined to overcome that weakness. So taking the child on her lap one evening, when she was about three or four years of age, she explained to her that darkness was merely the absence of light, illustrating it by turning the gas off and on again. She showed her the objects in the room were the same in the dark as in the light—nothing was changed, only the light being gone she

couldn't see so plainly. The words were simple, the child understood, and thenceforth there was no more fear on that subject. So, also, did she teach her the danger of fire. Being in a room with an open grate, the mother felt alarm lest some accident might happen during her temporary absence. Forewarned is forearmed. The child must be taught to take care of herself. Children get into trouble from ignorance the same as grown people do frequently. Knowing that ill results will follow certain acts, we do not commit them unless reckless and hardened. A child is not hardened, it is simply ignorant and thoughtless; therefore to avoid trouble, educate children and make them thoughtful. So taking the child on her lap, the mother explained in simple words the nature of fire: that its business was to burn everything it got hold of, and if she went near the fire during her mother's absence, a spark might jump out and set her clothing on fire, and burn her to death before any one could come to her rescue. She then pictured the terrible scene of a death by fire, the agonizing screams of the sufferer, and the sorrow and grief of the helpless friends who could do nothing to relieve the pain and anguish. It was a thrilling half-hour's conversation, but it did the business effectually. The child never went near the fire after that when left alone in the room, nor would she allow any chance visitor to do so. "Keep away from the fire while mamma is out of the room," was her watchword, and I have no doubt but that it saved her life; for many a time has she been left alone for an hour or more and no harm ever came of it.

Of course she was reminded of her order and questioned if she had obeyed on the return, thus keeping the subject fresh in her mind until it had become habitual. If the mother had forgotten it perhaps the child would have also.

S. E. SIEGEL.

LET the family table be always a meeting-place of pleasantness, affection and peace.

LITTLE COURTESIES.

IN the village where I have been of late we have a young lady for our acting postmistress. I have been interested in one little thing which she invariably does. I go to the wicket—so I may call the window with the numbered boxes round it—and I ask for my mail. She smiles, and in a moment or two lays my letters before me *with their addresses downward* and out of sight. If I had noticed it but once or twice I should have supposed that the placing of them in that position was accidental, but it is always done in just that way, and so I know that she has a design in it.

It is, I take it, a delicate way—perhaps all unconscious on her part—of showing that she does not care to know, and does not know anything about my letters, except the bare fact that they are mine. It may be that she does not wish other people to read the address upon them; but as the thing is invariable, I am sure I am right in my supposition—the innate and unconscious delicacy of our fair postmistress makes her do it. She does it because she is a lady.

It reminds me of what I once saw—and although it was years ago I have never forgotten it—on a metropolitan street. A lady walking in front of me on the crowded street dropped a letter on the sidewalk; it fell with its address upward. A gentleman immediately behind her took it up, and without looking at it, turned it over, and stepping to her side handed it to her, as he bowed, still with its address out of sight. The thing was done in an instant, but it was sufficient to declare that there was a true gentleman, an instinctive gentleman. The turning the letter over, without a glance at its address, made an emphatic declaration of the fact.

I received a letter a while ago on a matter that concerned my correspondent and not myself; it had a post-stamp enclosed. That did not arrest my attention—its enclosure was the merest courtesy or even decency—but it was attached

to the letter by a small pin thrust through it. Here, too, it seemed to me, was exhibited the instinctive delicacy of a gentlemanly man. He would not seem to have touched to his lips the stamp which he sent me.

I have a friend—he is “a gentleman of the old school”—who in sending a letter to a lady always seals it with wax and with his seal. He says, in an apologetic way, that he does not like to send anything to a lady that he has spit upon. He puts it rather strongly, but I apprehend that it is the outcome of the same sort of feeling that makes him invariably stand with his hat in hand when he talks to a lady on the street.

This latter habit of his, he tells me, he has been often tempted to abandon, because the fair ones do not seem to be well bred enough to understand it, or to be well informed enough to know that they ought to request him to put it on his head. I am afraid that, in the most of cases, he is not far from right in his belief. It is more than probable that some of them half wonder why he does it.

But I hope that he will not give up these and some other peculiarities of his. It is refreshing to see, in these times of hurry, a quiet and refined gentleman to whom the little and delicate courtesies have become a habit. There is nothing which for a moment would suggest the want of manly powers. No one ever thinks of that in connection with him. There is a calm self-poise and dignity blending themselves with his courtesy that command respect and deference from those who come even casually in contact with him.

Mr. Wholbred, that is my friend's name, remarking on the brusqueness of manner, coming from carelessness or something worse, which he sees, says that the times evidently are against the gentle amenities of life, that men are in too great a hurry in these times to pay any attention to them. I have heard him talk after this fashion: “These things are not vitally

important, they are not necessary to the existence of society, but they are effects of real civilization." He says playfully, "Our American, indeed our modern hurry tends to barbarism. A little more leisure might perhaps make more gentlemen and fewer savages. These small (so some would call them) amenities of life which a true gentleman exhibits smooth the rough edges of life, and they make smiles in a world where smiles are greatly needed. There has been a decay of manners of late years, so that what once would not be tolerated is now hardly noticed, if noticed is excused."

"There," I have heard him say, "is the use of tobacco. Few decent men chew the weed, but how carelessly some who are deemed gentlemen smoke it! I do not denounce a cigar in its place, but I grow indignant when I smell its fumes out of their place. That out of place is where ladies are, or anybody else who does not use it—for clearly men have rights as well as women. This indulgence

in public places is simply a brutal practice, of which no real gentleman would be guilty. It exhibits the innate coarseness of the man's fibre."

Mr. Wholbred has some extreme—so some would consider them—ideas on this subject of courtesy in life. He says that our haste, and so our decay in manners, betrays itself in the flippant way in which some people acknowledge a favor. "Listen," I have heard him explain, "to that young fellow, as he says, 'No, thanks!' or hear that Miss, simper 'Yes, thanks.' I do not know where that came from—perhaps some snob, over the water, said it first, and these people think that it is 'so nice,' but it is after all the result of a want of true gentlemanly or ladylike instinct. If you feel any thanks, take time to say, 'I thank you, sir,' but never be guilty of cutting your expression of it off with a monosyllable." I think that my friend is not far from right.—*From "A Bachelor's Talks About Married Life."*

HOW THE STORY GREW.

SAID Mrs. A.
To Mrs. J.,
In quite a confidential way,
"It seems to me
That Mrs. B.
Takes too much—something, in her tea."
And Mrs. J.
To Mrs. K.
That night was overheard to say,
She grieved to touch
Upon it much,
But "Mrs. B. took—such and such!"
Then Mrs. K.,
Went straight away
And told a friend, the self-same day,
"Twas sad to think"—
Here came a wink—
"That Mrs. B. was fond of drink."
The friend's disgust
Was such she must
Inform a lady "which she nussed,"
"That Mrs. B.,
At half-past three,
Was that far gone she couldn't see."

This lady we
Have mentioned, she
Gave needle-work to Mrs. B.,
And at such news
Could scarcely choose
But further needle-work refuse.
Then Mrs. B.,
As you'll agree,
Quite properly—she said, said she,
That she would track
The scandal back
To those who made her look so black.
Through Mrs. K.
And Mrs. J.
She got at last to Mrs. A.,
And asked her why,
With cruel lie,
She painted her so deep a dye?
Said Mrs. A.,
In some dismay,
"I no such thing could ever say;
I said that you
Much stouter grew
On too much sugar—which you do!"



WHY SO MANY WOMEN FADE EARLY.

A CORRESPONDENT of one of our New England exchanges has illustrated the leading causes of early decay in women with so much aptness that we consider it fitting to present the article here in a condensed form :

"A woman should reach her prime between forty and fifty," says an author of note, but, alas, too many have sunken cheeks, sallow complexions, and tired, fretful faces, at that age. The causes are many; the perils and anxieties of child-bearing and child-training have robbed many a blooming cheek of its charm of freshness, but even this is contrary to the laws of nature. When these sacred duties are understood as they should be, and proper care is taken not only of the body but of the mental condition, we shall see happy, cheerful mothers in every home.

There are many causes lying at the root of this evil, for evil it is, when the sweetness and freshness leave a young woman's face, and hard lines make her appear even older than her grandmother.

One chief cause is fretting or over-anxiety. Women, as a rule, dwell too much on little things; they magnify trouble, anticipate their coming, and weary themselves over trifles. Only a short time since we saw a most estimable lady rendered miserable for days because a carpet-fitter had neglected to finish his work neatly. Another was so anxious about some cake she was making for a

church fair that her nerves were quite out of tune and her temper ruffled. One good woman, the mother of a family, said once in the hearing of the writer, that "she kept awake all night, much worried because she had sealed a bottle of some fancy pickles, and neglected to put in a certain kind of spice." Think of it. In a world full of important work, in a life crowded with grand possibilities, a woman making herself miserable over a jar of pickles!

Mothers fret about their children in the most unnecessary manner. Tommy is sent on an errand for his mother with instruction to return at once. Tommy does not return; an hour passes, and still another, but Tommy does not appear. Mamma grows impatient, then anxious, then desperate, and at last is in a state of nervous excitement quite injurious to her health. After the entire family has been disturbed, the police questioned, and the parents instructed that it "was quite time to punish that boy; he was getting the upper hand very fast," Tommy appears, smiling, whistling, happy. A wise mother would calmly hear his story, but Tommy's mother is unduly excited, and she literally pounces upon the child. The story is terse and simple. Tommy was obliged to wait; then the gentleman asked him if he would do an errand for him, and the obliging boy consented; the delay was greater than he anticipated, and Tommy was "awful hungry." That

was all. He had neither "been in a boat," "carried off by some horrid tramp," or "strayed away with wicked boys," as his mamma feared, and yet she is ill with a headache, and Tommy "wishes he was a man, and folks didn't make such a fuss if you was out of sight a little while."

Boys must be trusted to a greater extent than girls in matters of absence from home. Your genuine, manly boy detests restraint and what he calls "fussiness." Many a mother has disgusted a growing son by fancied evils, and these are the fancies which are "the worm in the bud" to steal away the restfulness and peace from a pretty or beautiful face. Women in the household are too conscientious for their own good. If the master of the house is late and the dinner is spoiled, the mistress grieves over the matter with a face expressive of deep grief. What does it matter? True, a good dinner well served is a desirable thing, but delay from unavoidable causes should never cause the wife to meet her husband with a frown.

Our earnest advice to women, young and old, is, "Don't fret." Life is too important, sacred, and grand to waste in useless repinings. No man can understand the numerous cares of a house-mother, and consequently it is useless to expect it. He may be kind, indulgent, and even anxious to aid her, but her small cares in the course of a day would fill a volume.

Another cause of early vanishing beauty is the want of fresh air. Not an occasional walk or drive, not a round of calls or a little shopping, but regular doses of good, fresh air. A woman should make it a religious duty to see something new every day, something which will compel her to walk, and at the same time divert her, leading her to forget the unfinished garment or the impertinence of a maid-of-all-work. It is right, proper, essential to good health, spirits, and an equable temper, that a woman should go out, not saying, "I will finish this needlework," or "arrange this room," but putting health before all else, resolutely go out into the air.

"Morning air," exclaims a busy matron, with visions of unmade beds and carpets unswept.

Yes, half an hour will tone one up for the day. If need be, let the children be taken, and the walk will be doubly enjoyable as one listens to their artless prattle. A famous botanist dated his love of plants to the early morning walks taken with his mother. She knew something about their habits and names, just enough to inspire him with a determination to know more.

Not long since, a young mother said, "When you proposed the constitutional for me, I thought it a luxury I could not afford. I had been taught in my old New England home that every good housekeeper always finished her domestic duties before going out. I resolved to try your method, not, however, till health and strength were failing, and the care of two children made me nervous and fanciful. Now, for more than a year I have thrown open my windows, exposed bedding and room to a current of fresh air, and then put on over my morning-dress a little suit of water-proof. For each child I made a simple ulster, which covered the plain or soiled dress underneath. Thus arrayed we went out for one hour, no more, no less. The good has been beyond estimate; even my husband rejoices in my common-sense ideas and increased strength."

"Suppose some one should call and afterward represent you as an untidy housekeeper?"

"I am wiser now, and I know very well that the untidy women are those who leave things entirely undone, or badly done, not those who consider health first and take the remainder of their day for things of less moment. Hundreds of persons make up their beds without airing them at all, or only for a few minutes; any good physician will tell you that is untidy."

The more duties a woman has to perform the more need has she for uniform good temper and strong, healthy nerves. These she can never have if her days and

nights are spent within four walls, with little to cheer and much to wear out the vital forces.

If it be true that all have a certain amount of vitality, is it not worse than folly to expend any part of it in over-nice attentions that give mere animal gratification? Take, for instance, the washing of clothes. How many women fret for fear it might storm on Monday, as if the salvation of the family depended on the restoration of its dirty linen on a certain day!

As a rule, it is well to take things as easy as possible, but some are so constituted that restlessness is their portion. Some women are miserable, when idle, even when rest is necessary.

When to rest, how to rest, and where to rest, each must determine for herself, but all know that nature rebels unless true and complete rest is taken during some portion of each day. When this is done, and women learn that fussiness is not neatness, and that fretfulness is a deadly foe to beauty, our women will not fade in their youth, or look care-worn and anxious, as hundreds now do. It is a painful fact that "too many women are overworked," and yet large numbers needlessly overwork themselves. As a coarse but worthy old woman once said, "Some women are so *pizen* nice they neither take any comfort themselves nor let any one else." These "pizen nice" people are sometimes found among the other sex, and the faculty they possess for annoying and wearying all who are associated with them surpasses belief, except by those who have experienced it. Husbands who would not for a moment tolerate any interference by their wives in their business concerns, but meet all suggestions on such subjects with a contemptuous "Pshaw, my dear, mind your needle and your kitchen, and leave me to do the actual fighting in the battle of life"—are often the most active in their interference in the sphere of the house-keeper's duties. Such men are responsible for the faded looks of their wives and daughters; but fortunately they are few

in number, and even they well know that a woman who is cheerful and bright depends largely on nature for assistance. The day is not far distant, we trust, when American women will be not only the most beautiful, but the freshest and wisest in the world.

A DINNER IN MOROCCO.—Before taking our places at table, we seated ourselves cross-legged on the carpets, around the master's secretary, who prepared tea before us, and made us take, according to custom, three cups apiece, excessively sweetened and flavored with mint. . . . After tea we took our seats at table, and the master, being entreated, seated himself also; and then the Arab dishes, objects of our intense curiosity, began to circulate. I tasted the first with simple faith. Great heaven! My first impulse was to attack the cook. All the contractions that can be produced upon the face of a man who is suddenly assailed by an acute colic, or who hears the news of his banker's failure, were, I think, visible on mine. I understood in one moment how it was that a people who ate in that way should believe in another God, and take other views of human life than ours. I can not express what I felt otherwise than by likening myself to some unhappy wretch who is forced to satisfy his appetite upon the pomatum pots of his barber. There were flavors of soaps, pomades, wax, dyes, cosmetics,—everything that is least proper to be put into a human mouth. At each dish we exchanged glances of wonder and dismay. No doubt the original material was good enough,—chickens, mutton, game, fish; large dishes of a very fine appearance, but all swimming in most abominable sauces, and so flavored and perfumed that it would have seemed more natural to attack them with a comb rather than with a fork. . . . At every mouthful our host humbly interrogated us by a look; and we, opening our eyes very wide, answered in chorus, "Excellent! exquisite!" and hastened to swallow a glass of wine to revive our drooping courage.—*De Amicis*.

AIR AND SUN BATHS.

THERE is a no more valuable mode of treatment, in cases of depressed vital function and general systemic weakness, than that of air-bathing. The method to be followed is, in most cases, by no means difficult, as will be apparent to the reader as he peruses the following brief directions, which are given by a contributor to the *Journal of Chemistry*. It should be said, by way of introduction, that the writer's conclusions are the outcome of careful study on the subject :

"The air-bath is a means of recuperation which needs to be intelligently and carefully adopted, and like all other good things must not be abused. There are hundreds of thousands of people of both sexes, in this country, who lead miserable lives. And yet they are not in bed ; not, perhaps, confined to their dwellings. They suffer from nervous prostration, from imperfect digestion and assimilation, from worry, from overwork, from the care of households, etc. A vast number in the mighty army of invalids are not themselves to blame for their physical weaknesses ; their idiosyncrasies of organization come by inheritance. Heredity is the cause of one-half of all the misery in the world.

"Now, the air-bath comes to the feeble and physically impoverished as a kind and good friend ; and let us see how we can obtain from it the highest good. Nearly all semi-invalids are inclined to sedentary habits, and as the circulation is languid the body, in winter, is under a persistent chill. In the morning, upon getting out of bed, the clothing can not be too quickly adjusted, as the body is in a shiver, and the air of a cool room is a thing to be dreaded.

"The morning is the time for the air-bath, and all that is required is a hair-cloth mitten and a moderately cool room. When the invalid steps from the bed to the floor in the morning, let the hair-glove or mitten be seized, and without removing

the night-clothes proceed to rub gently all parts of the body, at the same time walking about in the room until a feeling of fatigue is experienced ; then drop the glove, and gently pass the hand over all parts of the body before resuming the clothing. Unless the nude body is extremely sensitive to cold, a portion may be exposed to the air for a few moments while in motion, even on the first morning. The next morning jump out of bed, in a moderately cool room, and go over the same process as before, remaining a little longer exposed to the air after the rubbing. The third morning repeat this treatment ; and on the fourth, or at the end of a week, take off all the night-clothing, and briskly apply the hair-glove, first with the right hand and then with the left, all the time walking about. Follow up this, as the degree of strength permits, morning after morning, until the body is so rejuvenated and the blood so attracted to the surface, that the cool air is felt to be a luxury. Let the body be entirely nude,—no socks upon the feet, no scarf about the chest. At first, or after the first week, perhaps, the exposure to the pure cool air may be three or four minutes ; soon increase the exposure, until, after a month or two, the air-bath may continue for twenty minutes or half an hour. Do not fail to walk about during the first month, using the hands in polishing the skin. After the first month the patient may sit in the air of the room part of the time ; but constant, gentle exercise is best.

"Now, another most important curative agent, connected with the air-bath, is *sunlight*. In summer sunlight is accessible, but in winter only the late risers can secure its benefits. If possible, sit and walk in the sunlight during the bath. It is astonishing what the direct actinic rays of the morning sun can do for an invalid when the whole nude body is brought under its influence."

SPIRIT-HEALTH.

"I DO not see how you can keep so even-tempered with so much to vex you."

"I can not afford not to keep even-tempered."

"Can not afford it?"

"No; no mother can afford it. I may say no wife, no neighbor, no human being living in society, and affected by its complex relations."

"But we all do afford it."

"Yes; and we all become emotional bankrupts."

"I don't quite understand what you mean by that."

"I mean, in the plainest language, that women use themselves up by fretting. The richness of their nature is dissipated. They become arid and sterile, and flowerless as to their heart-life. See here. I copied this passage from a book the other day: 'The expansion of the heart by loving is the health of the spiritual nature. All criticism, all unkindness, works against this health.'"

It was Mrs. Gresham, the minister's wife, and the mother of ten children, who was speaking. Her friend, Mrs. Walsh, took the note-book, that held the quotation, from Mrs. Gresham's hand.

"'The expansion of the heart by loving is the health of the spiritual nature,'" Mrs. Walsh read the sentence again. "I know that is true," she said, "though I never saw it put in just that way."

"That is what I meant when I said I could not afford to be 'cross.' It makes me sick," said Mrs. Gresham.

"Well, that is going a little too far," said Mrs. Walsh. "I can not say that it makes me sick to lose my temper."

"Ultimately it makes us all sick, who stand in the centre of a network of delicate relations. For instance, I am vexed beyond endurance at a servant's carelessness. I speak to her harshly. She retaliates, in spirit, if not in word. An antagonism is created, which isolates us each from the other. The currents of kindness are forced back, as far as we two are con-

cerned. Under that unnatural pressure I am hard and cold to a degree. The children meet my look, and shrink from it. I have no sweet word for baby, who comes to me, all laughing and rosy from her play, for a moment's sympathy, a gay word, and a kiss. In such an atmosphere the children begin to quarrel with each other. There are reprimands, and perhaps a shake of some child's naughty shoulders, or a light slap on a little cheek. Work suddenly becomes difficult. The very garment I am making or mending seems to get unruly. Life is so hard all at once! I go on getting more and more tired, and by night I am sick, and my husband comes home to a disorganized household."

"That is the history of many a day at my house," said Mrs. Walsh. "But must one never reprimand a servant?"

"We should seldom wish to do so if we would put ourselves in our servants' places. Generally the fault lies not in the intention of the servant, but in the exacting spirit of the mistress. Often and often I have been at the point of finding fault, and have waited and kept silent instead. I am repaid a thousand-fold every time this happens. If I wait, forcing myself to be quiet when tempted to scold, presently I see that after all there was not much to scold about. Then, instead of repression and coldness, there is expansion and warmth. It is so in my relations with the children. Some unintentional mischief is condoned. The child feels that 'mamma' was annoyed; but she said nothing, and forgave the fault,—bore the annoyance. The little one is grateful, and by and by comes stealing up for a caress. Then one may take advantage of the tender heart to say helpful, instructive words that will be remembered. And how the heart expands, and how strong we feel in the love-atmosphere thus created. It is indeed true that 'the expansion of the heart by loving is the health of the spiritual nature.'"

"And could you always control yourself in this way?" asked Mrs. Walsh.

"Far from it. But until I learned how to keep the love-currents free I was always tired, overburdened, spiritually and bodily sick."

Mr. Gresham came in at that minute, and Mrs. Walsh went home, pondering what she had heard. MRS. M. F. BUTTS.

AN INVALID'S MEDICAL EXPERIENCE.— Under the title "One of Many," the New York *Graphic* gets up this amusing bit of satire:

"Well, the poor boy came into this world with a weak body, for his mother was troubled with much household care and labor when she bore him, and his father, though a church-member in good standing, was an inordinate tobacco-chewer, and kept his strength bolstered up through the stimulus of the weed. So long as the boy ran about loose with other children, and played in the sand with bare feet, he was tolerably healthy. But when sent to school he pined. At the boarding-school he was counted a good scholar, and made great progress in memorizing. At eighteen he was tall, 'spindling,' and slightly stooping, always complaining, eating according to custom whatever was set before him, working and studying directly after eating, and

complaining of a weak stomach. So he went on in life till the age of twenty-five. Then he married, was always in poor health, and in frequent consultation with doctors. First, doctors at home; next, doctors abroad; then, special doctors; now, regulation doctors, with reputations and diplomas; and then, in despair, applying to outside doctors, herb doctors, bush doctors, botanic doctors, and tramp doctors; doctors who said it was his liver, doctors who said it was his heart, doctors who said it was malaria, doctors who said he didn't make blood enough, doctors who starved him, doctors who stuffed him, doctors who chilled him in cold, wet blankets; doctors who parboiled him in medicated vapor-baths, doctors who advised him to go North, doctors who advised him to go South, doctors who suggested springs, doctors who recommended mud-baths; but never a doctor who told him that half the damage had been done before he came into the world, and the other half through his own ignorance and that of the authors of his being afterward. But he died all right, and the doctors then found out what ailed him; and they gave the complaint a Latin name, and it's now raging round seeking whom it may devour."

A SEDUCTIVE DRUG.

[Extract from an Address by Geo. W. Winterburn, Ph.D., M.D., delivered at New Haven, Conn.]

I DO not propose to occupy time relating instances of the opium habit. There is not a physician in active practice in any part of the country who has not abundant opportunity for personal investigation of these effects. There is not a physician but who finds his efforts to cure chronic diseases constantly baffled by the effects of opium upon the system. For it is not alone those who are degraded to inebriety that feel the baneful effects of this drug. It is its nature to interfere with the action of every other remedy, to make chronic diseases more obstinate, to stand between patient and physician

as an obstacle to cure. This is the case not only when taken in the immense doses of the confirmed inebriate, but also when given in what are called moderate and safe dosage.

While it is harmful to all, it is infinitely more so to the young. There is a triad of infant murderers, and their names are Godfrey's Cordial, Paregoric, and Mrs. Winslow's Soothing Syrup. The two former are harmless compared to the last mentioned, which contains a grain of sulphate of morphia to the ounce. That each of them cause many deaths annually, both directly and indirectly, and induce weakened health of the body and brain to a much larger number than

are killed outright, are undeniable facts; but for murderous efficiency Mrs. Winslow bears the palm. No punishment in this world or beyond the grave is too severe for that person who, revelling in the ill-gotten wealth secured under a fictitious name and by false pretences, has murdered, as surely as if she had herself plied the dose, so many thousands of her little countrymen. Only those who have had experience in the tenement-house districts of our large cities can realize the enormity of this crime. Many a little sufferer whose demise is chronicled in the records of the Board of Health as from meningitis, marasmus, dysentery, or fever was killed by the slow undermining of the constitution by one of these opiated preparations. . . .

These mixtures are used, in a vast majority of cases, because they are supposed to be harmless. Many do not know that paregoric contains opium, and many a mother who would look upon a doctor who gave her baby morphine as a very bad man, gives that same baby paregoric by the teaspoonful. The remedy would be to require every bottle containing any preparation of opium to have affixed thereto a label stating the fact, and a caution against large doses or habitual use. Or better still, prevent the sale of opiated mixtures except on a physician's prescription.

One instance will illustrate this observation. A very intelligent woman, the daughter of a well-to-do farmer, and the wife of a boss painter, living in comfortable circumstances, and the mother of two lovely children, told me a few days since how fond her baby—four months old—was of Mrs. Winslow's Syrup. "Why," said she, "she will get so mad if I don't give it to her, and scream and kick all the morning." I suggested that perhaps she was in pain. "Oh, no, she ain't; it's just temper, she likes the syrup so much." Inquiry developed the fact that when the child was about two weeks old it was troubled with insomnia, and the mother gave the syrup to make it sleep, supposing it was harmless. Now, so used had

it become to its effects, that one teaspoonful simply made it good-natured, and it would take two or even three (morphine gr. $\frac{3}{4}$) teaspoonfuls to make it sleep. What would be the chances for a child so habituated to the use of opium if ever seized with cholera infantum or pneumonia? On explaining to the mother the peril she was incurring for her child, and the nature of the drug she was using, she promised to wean it from it—"as soon as the house-cleaning was through with."—*Exchange.*

WATER POULTICES.—A water poultice for the throat may be made as follows: Take four thicknesses of old cotton cloth, three or four inches wide, and long enough to extend from ear to ear. Dip it in water, hot or cold, as the condition of the throat may require. Over these folds of cotton cloth apply a layer of cotton-batting, an inch in thickness, and long and wide enough to cover the cotton cloth. Over this place a strip of waterproof cloth, or oil-silk. Apply to the throat, and keep in place by a bandage.

This poultice, if cold, will induce a local sweating, that will relieve the mucous membrane, or inner lining of the throat. When nearly dry, wring the four folds of cotton cloth again in cold water, and repeat the application for two or four nights, if necessary.

It may be wise to keep children, who are thus treated, within the house for a few days; but if they must go out on the following morning, wash the throat with cold water just before the patient leaves the house.

The water poultice should be cold in all cases in which inflammation may exist, but should be hot if ulceration or suppuration exists. A sore throat needs cold water, but suppuration needs hot,—as the diseased throat of diphtheria, or scarlatina in abscesses.

A sponge poultice has some advantages above all others, and is made as follows: Make a flannel bag three inches wide, and as long as any given affection re-

quires. Fill this bag with very small bits of sponge; then soak in hot or cold water, as the case may need. Cover the outside with layers of cotton-batting, and over this some water-proof material. This poultice is elastic, and may be kept constantly near the skin, and will keep the

throat at a uniform temperature,—a very important point in diphtheria and scarlatina, and all other maladies in which suppuration exists. Cold sponge poultices may be applied in the early stages of scarlatina and diphtheria to lessen the tendency to inflammation.

NOTES IN SCIENCE AND AGRICULTURE.

Curious Customs of the Seminoles.—A child at its birth is called a papoose, but when old enough to walk it receives a second name. A girl is a squaw at fourteen; at twenty another cognomen is given, denoting that she is of age. The boy has more difficulty in obtaining his last name. When he enters his teens he is summoned before the warriors, who proceed, with sharp flints, to make six scratches on each of his four extremities. If he endure the ordeal bravely, he receives a name indicating the valiant warrior he is expected to become. Of this he is very proud, and takes the utmost pains to verify it. If, however, the boy shows any sign of weakness during the scratching process, he is dubbed for life with some derisive epithet, as "king of the alligators."

Among the Seminoles intemperance and theft are nearly abolished, they say, "because they strike at the root of the matter." A man arrested for theft receives, the first time, 50 lashes; the second, 100 lashes, and is marked for life by having one ear cut off. The third offence costs his life. As Indian laws are promptly and surely executed, the first or second punishment, generally, effectually cures kleptomania. For intemperance justice is equally summary. The Indian, excited by liquor, is a noisy fellow, and his whoops invariably attract attention to the vender of the poison. A company has been organized among them called the Light Horsemen. As soon as unusual yelling resounds from any particular locality, down swoop the Light Horsemen, who seize the whisky-keg, pour its contents on the ground, compel the owner to pay four dollars a gallon for all it originally contained, and leave a slight souvenir of their visit in the shape of one hundred lashes. These Indians can not understand the white man's method of dealing with the fire-water. They say: "He first licenses a man to distill it, then he licenses another to sell it, then he pays a policeman to catch those who drink it, and takes him to a house of correction; and when they come out they drink and are put in again! Don't understand."

The Seminoles have two games of which they are especially fond. The character of one is indicated by its name, "the stamp dance." In the other, balls are thrown between stakes, fifteen feet apart; and the Indians, armed with long poles, terminated by a pocket of netting, strive to catch them in the air or on the ground. The Indian pitch con-

stitutes the most amusing part of this game. When an individual stoops to pick up a ball, any one who can give him a propulsion of about fifteen feet forward. The propeller being in his turn propelled, nothing is visible to the spectator but a maze of moccasins pursuing each other through the air. Fifteen times the ball must be thrown from pole to pole, and this often consumes several hours. Then the losers assume an attitude of stoical indifference, while the winning party, not unlike more civilized nations, dance about them with loud whoops.

When a Seminole has concluded to terminate his bachelorhood, he sends some female friend with a present to the lady of his choice. If she be favorable to his suit she accepts the gift, if not it is returned; but as dying for love is not in the Indian's creed, Hiawatha excepted, the youth soon seeks another mate. If she be propitious, her father demands of him several years of labor, when he is rewarded with his bride and a handsome dower.

The red men consider their pale-faced brothers very foolish to take medicine so often. On the annual Thanksgiving a great number of herbs are gathered and boiled in a huge kettle. The tribes collect in crowds. From the forks of the trees, the roofs of the wigwams, and from every available place, papoosees, securely tied to boards, are suspended, and remain as mute and phlegmatic as warriors, while their parents gather around and watch the medicine-man and his wonderful concoction. When everything is ready he retires to a wigwam, and with the door closed goes through mysterious incantations. Now all enemies seek each other, the hand of fellowship is given and taken, and the broils of a year are healed. The rites of the medicine-man ended, each individual drinks a portion of the stew, whose potency insures a year of health. In a short time about 4,000 stomachs are ejecting the poison. We leave the scene to the reader's imagination. The Thanksgiving is ended.—*Lodola.*

Evidences of the Deluge.—There is a mountain in North Wales called Moel Tryfan, which is part of the Snowdon range, and upon which there is a valuable slate quarry, at a height of 1,390 feet above the present level of the sea. In opening that quarry an immense bed of gravel was found upon the top. This gravel could not have

been formed by mere disintegration of the soil, because it is full of sea-shells as perfect as they can be found on the shore, dead shells,—that is, not shells which apparently ever lived there, but shells both of the shore and the deep sea,—which had been drifted there in the middle of the gravel. These shells are heaped pell-mell on the gravel on the top of this mountain, and I believe that every geologist admits that this is quite a sound conclusion that the sea had been up to the top of this mountain, and I believe that every geologist admits that this is marine gravel. I take it that it is quite a sound conclusion that the sea had been up to the top of that mountain in very recent times, or that the mountain had been down to the level of the sea. I draw a second conclusion from this fact. That sea was not a permanent sea. It was not the case that the mountain formed the bottom of the ocean for many ages, because we should then have had deposits with shells, living and dying, as in the case of the sea terraces described by Mr. Smith, of Jordanhill. The sea had been essentially transitory in its operation. The second of the conditions of the Deluge is in this way fulfilled. Thirdly, it was tumultuous. It has no marks of quiet bedding. These being the facts, what are the conclusions that follow? Is it probable that the mountains of Wales alone were 1,400 feet lower than they are now? There might be very local, very partial submergence of volcanic mountains under the sea. But what I have described happened not in a volcanic district, and Moel Tryfan is not a volcanic mountain. But we are not left altogether to presumptive evidence upon this subject. We have similar gravels all over the counties of Lancashire, Cheshire, Staffordshire, and Worcestershire. In Cheshire they are found, near the town of Macclesfield, at 1,200 feet above the level of the sea, and very much under the same conditions. I think, therefore, that there is fair evidence that the submergence of the land, which in North Wales amounted to about 1,400 feet, extended over the whole of the British Islands.—*Good Words*.

Origin of Petroleum.—M. H. Byasson has been led by experiments to give, as a scientific explanation of the formation of petroleum, the following: "If a mixture of vapor of water, carbonic acid, and sulphureted hydrogen be made to act upon iron, heated to a white-heat in an iron tube, a certain quantity of liquid carburets will be formed. This mixture of carburets is comparable to petroleum. The formation of petroleum can thus be naturally explained by the action of chemical forces. The water of the sea, penetrated into the cavities of the terrestrial crust, carries with it numerous materials, and especially marine limestones. If the subterranean cavity permits these new products to penetrate to a depth where the temperature is sufficiently high, and to come in contact with metallic substances, such as iron or its sulphurets, we have a formation of carburets.

These bodies will form part of the gases whose expansive force causes earthquakes, volcanic eruptions, etc. Petroleum is always found in the neighborhood of volcanic regions, or along mountain chains. In general it will be modified in its properties by causes acting after its formation, such as partial distillation, etc. Petroleum deposits will always be accompanied by salt water or rock salt. Often, and especially where the deposit is among hard and compact rocks, it will be accompanied with gas, such as hydrogen, sulphureted hydrogen, carbonic acid, etc."

Constituents of Corn-Cob Ashes.

—When I was a small boy living in the woods, twenty-five miles from a lemon and groceries of every kind, I importuned my mother to make some shortcake for supper, but she said she had no saleratus to make it light; but if I would burn some corn-cobs, and dissolve the saleratus out of the ash, she would make the desired shortcake. I established temporary alkali-works for this purpose, and was proud of the ingenuity of my mother, who could thus extract "lightness" from cob-ashes, for the shortcake was light as a puff. I asked her why cob-ashes were better than other ashes for this purpose. "Because they are stronger." She measured the strength by the amount of carbonate of potash they contained.

When I received your favor of February 5th, inquiring about the manurial value of cob-ashes, not finding a satisfactory analysis, I determined to ascertain for myself the strength of these ashes. I burned ten cobs, just as they would be treated if burned for fuel, and not as usually done for analysis, viz.: to burn them white and thus remove all coal. I obtained the following results of analysis of these gray ashes:

Alkaline salts, of which 45 per cent. was carbonate of potash.....	54.00
Phosphate of lime.....	7.50
Carbonate of lime.....	2.20
Sulphate of lime.....	2.00
Carbonate of magnesia.....	8.00
Silica.....	20.00
Carbon.....	6.37
	100.00

The alkaline salts and phosphate of lime in one ton of such ashes are worth \$58, at current rates for such salts. The value of barnyard manure, in your neighborhood, you can estimate better than I, but it would be only a fraction of the value of cob-ashes.—*Dr. Kedgie*.

Railway Transportation in

GREAT BRITAIN.—The British railways, during 1879, carried no less than 502,732,890 passengers. Of these only 38,967,174 were first-class, and 63,430,844 second-class, while 460,334,872, or more than eight-tenths, were third-class. The receipts from the first-class were \$19,500,000; from the second-class, \$17,500,000; from the third-class, \$73,000,000, or about twice as much as both the other classes combined. These figures are striking

evidence of the advantageous result of increasing the facilities afforded to third-class travellers, and also suggest very strongly that low passenger rates are in the end more profitable to the railways than excessive rates.

[It must be understood that "third-class" is a by no means uncomfortable seat in a railway coach, and liberally patronized by the best people of Great Britain.—*Ed.*]

Raisin-Making in California.—

Miss Emily Faithfull visited, while in California, a woman who is earning her living, in a pleasant and sensible fashion, raising grapes, *not* for wine, but for raisins. Miss Austin, five years ago, was a school-teacher in San Francisco. Tired of that drudgery, she bought a hundred-acre lot, near Fresno, which she has since managed as a "raisin-farm," with the aid of a female friend and of four industrious Chinamen.

"Inside the house," says Miss Faithfull in a letter to *The London Lady's Pictorial*, "was an open piano. About the table were strewed the latest books and magazines, showing that raisin-growing had not dulled the fair proprietor's interest into the intellectual side of life. Miss Austin has planted peach, apricot, nectarine, and a few almond trees, but the greatest part of her land is devoted to vines for raisin-making. These are of the sweetest Muscat variety. The process of raisin-making is very simple. The bunches of grapes are cut from the vines and laid down in trays, in the open air, for about a fortnight, being duly turned at intervals. Then they are removed to the barn known as 'the sweating-house,' where they remain till all moisture is extracted. They are pressed and put into boxes, and sent off to the market or shipped to England. As I had already been given in San Francisco a box of Miss Austin's raisins 'as the best produced in the State,' my interest in seeing this clever lady, who had taken so new a departure in female industry, can be understood. Four years hence it is estimated that Miss Austin's property will be worth at least \$30,000."

Effect of Names on Value.—Taking arrowroot as an example. To the chemist arrowroot is starch in as pure a form as can be found in nature, and he applies this description to all kinds of arrowroot; but, looking in the "price current" in the *Grocer* of the current week (February 16th), I find under the first item, which is "Arrowroot," the following: "Bermuda, per pound, 1s. to 2s.": "St. Vincent and Natal, 2½d. to 8½d.": and this is a fair example of the usual differences of price of this commodity. Nine farthings to ninety-six farthings is a wide range, and should express a wide difference of quality. I have on several occasions, at long intervals apart, obtained samples of the highest-priced Bermuda, and even "missionary," arrowroot, supposed to be perfect, brought home by immaculate missionaries themselves, and therefore worth three and sixpence per pound, and have compared this with the two-

penny and threepenny "St. Vincent and Natal." I find that the only difference is that, on boiling in a given quantity of water, the Bermuda produces a somewhat stiffer jelly, the which additional tenacity is easily obtainable by using a little more twopenny (or I will say fourpenny, to allow a good profit on retailing) to the same quantity of water. Putting it commercially, the Natal, as retailed at fourpence per pound, and the Bermuda at its usual retail price of three shillings, I may safely say that nine ounces of Natal, costing twopence farthing, is equal to eight ounces of Bermuda, costing eightpence. Both are starch, and starch is neither more nor less than starch, unless it be that the best Bermuda, at three shillings per pound, is starch, *plus humbug*.—*Popular Science Monthly*.

What is the Blue Grass Region?

—This is a question strangers visiting the West frequently ask. Strictly speaking, the Blue Grass Region of Kentucky is pretty extensive; but the term, in its popular sense, applies only to the remarkable body of land in the centre of the State, which comprises six or eight counties surrounding Lexington. This favored district, which a scientific authority has styled "the very heart of the United States," is underlain by a decomposable limestone, which imparts to the soil an unsurpassed fertility, and gives to our grass, known to botanists as *Poa Pretensis*, a rich and permanent luxuriance which it attains nowhere else. Hence the term "The Blue Grass Region," a synonym for the acme of fertility of a district, which also bears the proud distinction of "the garden-spot of the world." But why our grass is called "blue," when it never is blue, is one of the unsolved problems. It is always green, except when in bloom, when the heads have a brownish-purple tint. If, however, the term "blue grass" is meant for an abbreviation of blue limestone grass, then it will do, for certainly it only reaches its highest perfection on our wonderful blue limestone soil. Propagated without cultivation it comes up thick and juicy early in the spring, ripens in June, renews its growth in autumn, and, retaining its verdure in spite of snow and ice, furnishes abundant and unequalled pasturage during the entire winter.

American Inventions.—An English journal gives credit to Americans for at least fifteen inventions and discoveries which, it says, have been adopted all over the world. First, the cotton-gin; second, the planing-machine; third, the mower and reaper; fourth the rotary printing press; fifth, navigation by steam; sixth, the hot-air or caloric engine; seventh, the sewing-machine; eighth, the India-rubber (vulcanite process) industry; ninth, the machine manufacture of horse-shoes; tenth, the sand-blast for carving; eleventh, the gauge lathe; twelfth, the grain-elevator; thirteenth, artificial ice manufacture on a large scale; fourteenth, the electro-magnet and its practical application; fifteenth, the composing machine for printers.



FOWLER & WELLS Co., *Publishers.*
H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK,
JUNE, 1884.

CONVINCE THEIR INTELLECTS.

THE Legislature of the State of New York has followed the example of certain other States in making a law that provides for the instruction of children who attend the public schools with reference to the effects of alcohol and tobacco upon the human body. This is a point gained by the temperance reformers, and it is significant of a positive advance of their cause, however much the other side may sneer. Let the children be shown that alcohol and tobacco are by their very natures essentially injurious to health, and they are likely to carry with them into maturity principles of thinking and acting that will be discouraging to the habits of "smoking," "chewing," and "drinking," and thus bring about that change in public sentiment that will be the best means for securing the object of the reformer: effective prohibition.

Some will say, that example is more powerful than precept, and that the lessons of the school-room will be completely neutralized by the example of father or big brother; but our reading of child-nature is more favorable to the operation of the new law upon their habits than that. First, because the

average child has some respect for law itself—the idea that a certain thing is improper in a legal view strongly impressing his tender sense. Second, because the average school-boy entertains a high respect for his teachers, and it is a common thing for him to quote their opinions as superior to those of his parents. The reader has only to review his own experience to find how tenaciously he clung to some things he had learned at school, even after he had discovered that they were not altogether true. Convince the intellect of a child that tobacco and rum have produced so much of misery in the world because they are poisonous to mind and body, and he is impressed with a most important principle in practical economics. As he grows up he can look on the destructive work done by intemperance with a thoughtful, discriminating eye, and calmly resist temptation when it comes to him. His sense of duty and propriety will be fortified by knowledge, in making a stand against friendly solicitation. Many young men fall into the toils of vice simply on account of their ignorance of the nature of the things they put to their lips. Their moral sense at first protests, but they are won over because they know not how to defend themselves. Our school-boys, subjected to a curriculum of study that is the invention of men who know very little about the science of education, are taught things that they will never have practical use for in active life; better, far better that they be taught the meaning of drunkenness, disease, crime, in their relation to the wine-cup, for these things stare them in the face on their way to the school-room in the morning, and on their way homeward after dismissal.

COMIC BIOGRAPHY.

THE mania for the comic in literature has become so strong that it has even invaded that most staid of departments, biography; and we already have a series of burlesque personal histories offered by enterprising publishers to that large and fickle public that doats so much on the funny. Names that have been wont to command general respect are on the title-pages of these books, but for the most part the authors have succeeded in producing a travesty of the leading incidents of a subject's life, and belittled and vulgarized what should be regarded with reverence by every true man. One of the latest outcomes of this scheme is a life of George Washington, and it probably is the best example of how a writer will fail who attempts to be droll, and at the same time avoid downright disrespect. A well-known critic takes the author very severely to task for lending a good name to such unworthy authorship, and points out the dangerous effects upon both writer and readers of such venal attempts from the very nature of the situation in which an author finds himself when working up such a piece of buffoonery. Having really little upon which to found a joke, his wit must have recourse to "incomplete and inaccurate outline" in which are mingled slangy phrases, "reflections and comparisons such as are encountered in what some people are pleased to call 'spicy' paragraphs of the period."

The literary humorist is entirely out of his line in dealing with historical and biographical subjects, and we have printed trash and rot enough, circulating by the million copies every week. We are radical believers in the doctrine

of a free press, that does not work harm to the intellect and morality of people, but we should, if we had the power, radically destroy most of the so-called comic literature of the day, because of the great harm it is doing, especially to the youth of the land. There are many newspapers that have acquired a wide circulation because of the room given in them to facetious sketches of social incident, "smart" paragraphs, and flippant and distorted personalities. Their vicious influence is even worse than that of the notorious "Dime Novel," and we heartily wish them all at the bottom of the Dead Sea.

AN ANOMALY.—A paragraph from a Washington newspaper states that "Mrs. Marilla M. Ricker, who has been a member of the Bar here for several years, was today appointed by the Supreme Court District United States Commissioner to examine in chancery. In this capacity Mrs. Ricker can issue warrants for the violation of the statutes, hear cases, and commit to the United States jail for action of the grand jury; she can also take testimony to dispose of cases for divorces." They who read this must be compelled to smile, at least at the manifest anomaly of such an appointment. Here we have a woman competent, we have no doubt, to perform all the duties of the magisterial office to which she has been assigned; yet, by law, debarred from exercising rights of citizenship which she, as magistrate, may be called upon to consider and adjudicate. She is recognized as an authority to determine when a man lawfully exercises the right of suffrage, yet can not exercise it herself. There is a savor of incompleteness about this that demands remedy. They do things better in far-away Oregon.

THE INSTITUTE AND ITS WORK.

THE *New York Tribune* in its "Talks about Town," thus quotes Mrs. C. F. Wells as saying to its representative:

"My brothers and myself have been associated with the study of Phrenology since 1834. They are now in the lecturing field, one in England, the other in California. Since Mr. Wells' death I have carried on the business until recently, when it has been incorporated under the old firm name. I am chiefly concerned now in providing a permanent building for the reception of these busts and casts, nearly 2,000 in number, which represent the labor of half a century in collecting. I will deed the entire collection to the proper person or persons who will secure its integrity and preservation. The science of Phrenology has got now where it can never go back. It has disciples in every walk of life. We have made ten personal examinations a day for nearly fifty years, and the public interest shows no abatement."

The truth of the activity of phrenological principles in the thought of the day needs no special demonstration. It is evident in every sphere that has a relation to the development and exercise of body and mind. It is apparent in the special observations that are made in the structure and functions of brain by so many. It is apparent in the daily inquiries of cultured people with regard to the nature of the Phrenological Institute, and the increasing number from year to year of those who would be glad to avail themselves of the lectures and demonstrations of the autumn course of study pursued in accordance with the plan of the Institute, to facilitate the dissemination of human science among the American people. The seeds of truth which the Institute has been sowing for nearly eighteen years are springing into leaf,

flower, and fruit—and giving assurance of the high utility of the work. There lies before us a note lately received from a young minister, one who attended a course at the Institute, and who has an important charge in the West. This is what he says: "I have come out boldly as a phrenologist, and preach it from the pulpit." There are many ministers who do the same, and are enthusiastic in their acknowledgment of personal gain.

The knowledge of human nature that scientific study has given them has made them far better qualified for their work than they had expected, and their people are better satisfied with them. Not long since we read in an Atlanta newspaper, a highly complimentary notice of a teacher who conducts a school in a town not far from that enterprising Georgian city. That teacher is one of the students of the Institute, and like many another successful pedagogue, gratefully declares that what he has done in the past few years to elicit public commendation is due entirely to his phrenological training.

The trustees, with the co-operation of Mrs. Wells, whose liberal sentiments with reference to the extension of Phrenological instruction are intimated in the above quotation, are unanimous in their desire to open the doors of the Institute to all worthy students, and were its endowment sufficient to pay the expenses of keeping the museum in accordance with the terms of its charter, the policy of instruction on terms merely nominal would be introduced for the benefit of those whose vocations require a special knowledge of the human organization.

LOOK after the establishment of a worthy character and leave its appreciation to others.

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE CONTRIBUTIONS unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal matters will be considered by the Editor if this is done.

MANIFESTATIONS OF ORGANS.—R. B.

D. W.—Your observations with regard to Self-esteem are in the main correct. The expression of an organ is dependent upon surrounding influences largely. By that we mean not only influences external to the person, but also those which proceed from the action of organs surrounding the particular organ under notice. Self-esteem, for instance, is affected by the action of Firmness, or Conscientiousness, or Approbativeness, or Inhabitiveness, especially if those organs be large and powerful; and the results are what appear to be intermediate manifestations of function. Some examiners of experience have gone so far as to divide an organ into three or four parts, allotting to each part a function that, when analyzed critically, is but a modified or intermediate expression proceeding from the co-operation of the organ with those adjacent. Thus it would appear that the upper part of Self-esteem in co-operation with Firmness would exhibit ease and dignity, and when associating with Conscientiousness an independent and positive assurance in matters of conduct.

FINGER CHARACTER.—H. C. M.—You have found something of importance in your ex-

amination of finger lengths that may be valuable. In chiromancy a good deal is said about the indications of plumpness, spareness, the length of the joints or phalanges, palm, and so on. Usually the fore-finger is very nearly of the same length as the fourth finger or the one next the smallest. The middle finger is generally less than a half an inch longer than the fore-finger, not exhibiting the great disparity shown on your diagram. Forms of hands and feet, you know, are dependent upon one's heredity; a man having a very small thumb is likely to transmit that peculiarity to his sons just as a sixth finger or toe is transmitted. We have seen persons with a very insignificant little finger, and traced it back three or four generations. Go on with your observations of the relation of the hand to character, and you may add in time an important chapter to the literature of the hand. Most of the writing on the subject by chiromancers is effusive and romantic.

COMPARATIVE STATE LONGEVITY.—

J. A. F.—You are right in your views in regard to the want of logic in the comparison made of the relative longevity of the different States; and we suppose that every intelligent reader of the JOURNAL who examined the item with care was of the same opinion. We detected the anomalies ourselves, and in part published the item on that account. It is but another showing of how statistics may be improperly applied. It would not be an easy undertaking to bring the different States into line with trustworthy facts concerning their respective sanitary claims.

METALLIC DRUGS.—L. N.—We are not in favor of using preparations of iron for tonic or alterative effects, because we consider them unnecessary, and because, further, they can not be assimilated functionally. Nature prepares infusions and extracts of the metals in vegetable form, which can be appropriated by the stomach and enter the nutritive circulation; thus they serve a normal purpose; but chemical preparations from metallic bases are not adapted to vital appropriation. Certain tinctures of iron are in favorite use with a very large class of physicians, but our own observation has not found them of value. They may seem to induce beneficial effects at first, but later they are productive of disagreeable sensations and positively injurious conditions. Take, for instance, the muriatic tincture of iron, so much prescribed for indigestion, liver disorder, debility, etc.—at first the effect seems to be good, later with continuance of the compound we have the patient complaining of soreness of the mouth, fulness of the head, and other untoward symptoms.

CATARRH CURE.—C. W.—We can not direct you to a work by Dr. Trall in which a treatment by medicine is set forth. Dr. Trall's measures are hygienic diet, exercise, good air, proper life. The means are natural, not artificial; no compounded doses. Read his "Digestion and Dyspepsia," or Page's "Natural Cure."

CHARACTER AND THE FEATURES.—C. W.—Yes, changes in the character produce modifications of the face; in the course of time the practice of a line of conduct that is a change from what had been the habit earlier in life, will ingrain itself upon the face, and the longer the practice is continued the more pronounced will be the featural expression.

ENGLISH ANALYSIS.—F. M. B.—There are very few works on this subject that are well adapted to the use of an advanced student, although a general reference might be made to a first-class dictionary; but such a work is more expensive than a great majority of inquirers can afford. We might mention, however, Haldeman on "Analytical Orthography," price \$1.55; and Roget's "Thesaurus of English Words," price \$2.00, as useful to you.

SOME TOBACCO DATA.—J.—We can not furnish a full report of the consumption of tobacco in this country, but you may infer from the following proportional figures, furnished by an organ of the liquor and tobacco trade, how widely prevalent the habits of smoking and chewing are: "The tobacco factories and importers supply for every male person in this country ten pounds of chewing tobacco, three and a half pounds of smoking tobacco, two hundred and fifty cigars, and half a pound of snuff per annum." It adds: "For the six million youths, between the ages of ten and twenty-one, there are manufactured six hundred million cigarettes, or one hundred a piece."



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

A STORY OF AN EXAMINATION.—The last of March, this year, a gentleman brought photographs of his son, who was at school in a distant State, to have a written analysis of his character prepared. Having described him as well adapted to literature, and especially to one of the talking professions, and more especially to the ministry, we said among other things: "Your proper place in this world is where you can get a good education; you should look directly to a talking profession, either as a teacher in some institution where lecturing is the order of the hour largely, or else if you

feel called to it, when the time comes, to the pulpit. You are not organized to gather knowledge, and coil it up as a man would coil a rope in a barrel, and head it up; you are organized to acquire knowledge and reveal it; and the literary realm is that in which you would find your greatest success. You will learn languages, you will cultivate literature, you will comprehend analysis, and will be able to illustrate subjects and make them stand out in vivid light."

"Your top-head is high, indicating good moral powers; Benevolence, Veneration, Firmness, Self-esteem, Conscientiousness, and Spirituality appear well developed; and if you could be led into a literary or clerical channel, your talents, your aspirations, and your whole character would doubtless find in that direction better elbow room, not to say wing room, than anywhere else. It is as natural for your knowledge to come to the surface in the form of clear-cut, vigorous statement, as it is for water to run toward the ocean; it goes about as freely in the one case as in the other."

"You are proud and ambitious, you are firm, upright; watchful without being timid, respectful, kind-hearted, and have a certain moral respectability which keeps you above three-quarters of the allowable follies and vices of average respectable society. It may not be amiss to say that a man of your intelligence, if you cultivate it, instruct it, and were to become acquainted with any kind of business that an honest man may follow, could do fairly at it; but you belong to the sphere of public speaking, and we think moral public speaking, as distinctly as certain finely formed horses are seen to belong to the Boulevard, not to the plow or the dray. In such a field you can make your mark higher, get a wider and better influence and richer joy than in those merely secular pursuits which bring men in contact with the selfish and rough side of life. We have spoken of your being a teacher; we have spoken of your being a man of business and affairs, not so much a grabber for the dollars, though you would not waste money; we have spoken of your ability to read strangers, and exert influence, and adapt yourself to men without difficulty; we have spoken of your ability to go through a crowd of fifty people in three or four minutes and say a word to each, and move with especial influence; we have spoken of your being a clergyman; if you were to become such, it would be easy for you to exert a favorable influence upon the people and make yourself a leader among thinkers and well-minded people, in respect to what is right, and elevated, and proper; and you would be able to sustain yourself because you have large Firmness and Self-esteem, and people will look up to you who have seen more years than you; because you are influenced by, and live in the intellectual, moral, and aspiring qualities, not so much in the base of the brain in regard to things of the 'earth, earthy.'"

"You have wonderful perceptive and practical talent, which would aid you in literary work and give the basis for success in that direction. It would also enable you to become a first-rate scientist in chemistry, natural philosophy, and whatever relates to engineering, but *the moral qualities when they become ripened by age, and when your experience enables you to look through the broad field of life,* will give you more scope as a doctor, as a teacher, or even as a lawyer and statesman than you would get from a scientific field; because you never will be satisfied with mere physical facts and scientific data, you will want to work through and upon hope and moral aspiration."

When the description was finished, the father informed me that his son was bound to be an engineer; was studying with a view to entering a school of technology, with engineering as the ultimatum, and he seemed to feel disturbed to think our estimate had not run in the channel of the son's tastes and predestined course; and as the father was a thinker, it was not easy for him to reconcile our statement with the boy's apparent drift, and object, and purpose. However, he concluded to send the document to the boy in a distant State, and in a week received the following letter, which he brought in to show us that we had read the boy better than the father had:

"E——, Vt., April 4, 1884.

"DEAR FATHER: Your letter, also Phrenologist's report, came some days ago; but when I write I want to say just what I think, and I have not had time to do so until now; and I am not certain about being able to finish at present" (it should be remembered that the boy is but sixteen years old), "and now I might as well tell you of a notion that came into my head last term; not merely a *notion*, but a fixed belief; and it has grown into a certainty. I do not know how it came about, but as I grew older, and associated with cultivated persons more, both among the boys and friends, and elsewhere, I became gradually aware that I would never be satisfied unless I could hold a position in life where I could associate with persons of intellectuality and cultivation. I determined not to say anything to you about it; to go right on studying, enter the school of technology, and after graduating, obtain a position in some institution where I could secure a classical education, and study for the ministry, as affording to me the best opportunity for indulging in the pursuits I wish to follow. You noticed what is said about that in the Phrenologist's report, namely, that I 'would make a success as a civil engineer, but that as my mind became developed, the moral qualities would assert themselves, and I would not be satisfied.' I would have told you this before, but I knew it would disappoint you, as you would think I was vacillating from one thing to another; but now that I have this report to confirm my belief, I think it best to tell you. I am sorry to tell you now, for I know you think I want to go to

Boston to the school of technology, but I do not; if I did go, I would follow up that plan I mentioned. I would like to go to Harvard; not caring particularly about studying for the ministry there. I could obtain a position as master in some college; it would not take me long to fit myself; I will not have to study mathematics, study simply Latin and Greek. I am sure I would be more contented there; I would graduate at twenty-three at the furthest. For instance, compare that civil engineer's education to yours; do you suppose you would be contented with the education he had, now that you have the one that you have got? I mean that of M. B. It would be drudgery with me, striving for something I could not obtain. Observe how the classics cultivate a person.

"I have told you just what I think; and although you can not tell how I feel, you can form some idea.

"I send the Phrenological report back, so you can see to what points I refer. If you think it best, I would like to go to Harvard. I am young yet, schooling would not hurt me. This may disappoint you, even provoke you; but it is what I think and feel.

"Lovingly, Your son ——."

The sensible father seemed pleased to think the son had previously reached the same conclusion that his phrenology indicated, and he had the kindly grace to come in and let us know that we were correct, though at the time of the examination he had felt sure we were in the wrong. We doubt not both the father and son will cherish lifelong gratitude for the result of the examination.

NELSON SIZER.

PERSONAL.

MR. EDWARD O. JENKINS, one of the best known printers and publishers of New York, died April 20th, of pleuro-pneumonia, at his residence, 137 W. 44th Street. He was born in Abergavenny, Wales, in 1817, and came to this country when very young with his father's family. In 1832 he entered the printing-office of the *N. Y. Evangelist*, and having mastered the craft, he was employed by Mr. S. W. Benedict, one of the leading printers of that day, and soon became foreman. In 1844 he commenced business on his own account. He published the *American Review*, conducted by Mr. G. H. Corbin, the American edition of *Blackwood*, and many law reports, and rapidly acquired an extensive business. He removed into more commodious quarters, in Frankfort Street, in 1858, but his establishment was soon afterward destroyed by fire. He next purchased the printing establishment of Billings Brothers, No. 20 North William Street, which he still conducted at the time of his decease. For upward of thirty years he was most closely related to Fowler & Wells, doing the typographical work of the PHRENOLOGICAL JOURNAL, *Water-Cure Journal*,

Life Illustrated, and *Science of Health*, and of the majority of the other publications of this house.

Mr. Jenkins was a man of deep moral convictions, an earnest, thorough, industrious worker, a conscientious, sincere citizen and friend, and trusted and esteemed by a large number of publishers and writers to an exceptional degree. The printing-office that he sustained so long will be continued by his sons, one of whom, Mr. Percy Jenkins, has been connected with its management for ten years.

MR. ALVIN J. JOHNSON, the publisher of Johnson's Encyclopædia, Johnson's Atlas, and two or three other books from whose sale he amassed a fortune, died April 22d, at his residence in this city. He was a native of Vermont, and began his career in New York as a book-agent. He was a man of shrewd business instincts, and most of his ventures were successful. One of his most intimate friends was Horace Greeley, at whose suggestion he undertook the publication of the Encyclopædia.

AFTER all that has been said and written about her for, lo, these many years, Susan B. Anthony is the best-looking woman in the whole female suffrage party. Her face is full of good character, and she has a remarkably fine eye, while her head has all the points of what phrenologists call the ideal female head. Miss Anthony's figure is tall and erect, and to a marked extent retains the grace of what must have been a very charming girlhood. It is fair to suppose that under the subtle influence of wifehood and maternity, this gifted and philanthropic lady would have approached as nearly to the ideal woman as any other one of her sex now on earth.—*Chicago News*.

MRS. LAURA C. HALLOWAY, author of the "Homes of the Presidents," etc., has lately withdrawn from the staff of the *Brooklyn Eagle*, where she has done good work for twelve years. Entering on journalism when but few women were in the field, she has made it easier for her sisters of the press, who have found her an adviser and helper.

CHARLES READE'S death in England, on the 17th of April, removes from the literary world one of the best-known novelists of our day. His works were extensively read in this country. He was seventy years old at the time of his death, and had been engaged in literary work for nearly thirty years.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

MEN of means are often the meanest men.

No one is so blind to his own faults as a man who has the habit of detecting the faults of others.

It is so natural for a man to pray, that no theory can prevent him from doing it.—JAMES FREEMAN CLARKE.

WHO can measure the power of a great idea? Armies fight in vain against it, and nations yield to its sway.—MAUDSLEY.

A MAN in this world, is a boy spelling in short syllables; but he will combine them in the next.—BEECHER.

HOPE is a flatterer, but the most upright of all parasites; for she frequents the poor man's hut, as well as the palace of his superior.—SHENSTONE.

THERE is nothing more unreasonable than for men to live viciously and yet hope to escape the necessary consequences of their vices.—DR. SAMUEL CLARKE.

Far richer he who dines on simple herbs,
And knows the sweet delight of perfect health,
Than knaves and fools who sip their crystal wines,
And trust the glitter of deceitful wealth.

—HESIOD.

THERE is no solitude like that of the heart, when it looks around and sees in the vast concourse of human beings, not one to whom it can pour forth its sorrows or receive the answering sigh of sympathy.—MISS PORTER.

MIRTH.

"A little nonsense now and then
Is relished by the wisest men."

A GOOD-LOOKING lass loves a good looking-glass.

A LITTLE girl, after drinking a glass of water from a magnetic spring, said, "I do not feel one particle magnified, and I think these springs are a humbug."

Little Jack—"Let's play we is married."

Little Nell—"No, I won't. It ain't right."

Little Jack—"Why ain't it?"

Little Nell—"Tause mamma said we musn't quarrel."

"I TRUST your daughter is not one of those tame, spiritless sort of girls that sometimes apply to us for situations and are too bashful to fill them," said a Boston shopkeeper to a father who was seeking employment for one of his children. "Sir," he replied, indignantly, "my daughter has red hair."

FROM CURRENT ADVERTISEMENTS.—A large blue gentleman's overcoat lost in the vicinity of the market.

"Rooms to rent with all modern inconveniences" (unintentionally candid).

Wanted.—A comfortable room for a young man four feet by ten.

LADY: "Would you kindly tell me when the next train starts for Slowcome-in-Parva?" O'Kelly: "The next train, madam! Sure an' it's been gone ten minutes." Lady: "How annoying! Perhaps, sir, you could inform me at what time the last train goes?" O'Kelly: "Faith, that I can."

It's been taken off this month, and there's no last train at all, at all!"

AFFAIRS IN EGYPT.—From over the fence: "S'pose you've got all de news dis mornin', brer Pewter?"

Brer Pewter: "Yaas, pretty much all. Dey is having big times down in Africa. You know, de English folks wants to hab a Chinese named Gordon made president of a town dar called Skincat, and de Democrats being strictly opposed to de Chinese, wants a false prophet, called El Tilden, so de French has stepped in an' dey is habing some pretty severe fightin' in dat locality."—*Life*.



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

THE BOWSHAM PUZZLE. By John Habberton. 12mo, pp. 222, paper. Price 25 cents. Funk & Wagnalls, Publishers, New York.

Mr. Habberton is nothing unless he is humorous; at the same time he can dress out a character in terms that are vivid enough for us to recognize its fidelity to Nature. Bowsham appears to possess in the main the features of a southern town, and is supposed to be located on a river—shall we say the Mississippi?—that communicates with the Mexican Gulf. We are introduced to a variety of people, and shown a little of the half-barbaric customs of men who lead an unsettled life, and get the money they spend by irregular methods of using their wits. The plot is well managed, and the reader's curiosity kept alive by the peculiar incidents of the story that have a bearing on the puzzle, but do not help toward its solution until the author, near the end, almost spoils a political canvass by its curious development.

HOUSEHOLD CONVENIENCES. Being the Experience of many Practical Writers. 12mo, pp. 240. Illustrated. New York: Orange Judd Company. Also sold by the Fowler & Wells Company.

A very suitable companion for the excellent "Farm Conveniences" which was noticed in our last number. The man will find in that many useful devices for out-of-door use; the wife or housekeeper will find in "Household Conveniences" many a suggestion of importance to help toward lightening her labors in the kitchen, and for making the sitting-room and chambers more attractive and comfortable. The compiler of the book has shown good judgment in his selections, bringing

together the devices that hundreds of housekeepers have proven useful in their own homes. Practicality is in no case sacrificed to ornament, but the latter is not lost sight of in the homeliest or humblest of the devices. To supply the kitchen with articles of convenience has been the chief object, and rightly so, since it is the work-room of the household, and upon its well-ordered condition depends for the most part the happiness of the family; but the dining-room, sitting-room, library, sewing-room, and other parts of the home are not neglected. Over two hundred illustrations help to make the text-descriptions plain, and to illuminate the pages.

IN THE TENNESSEE MOUNTAINS. By Charles Egbert Craddock. 12mo, pp. 322. Price, cloth, \$1.25. Houghton, Mifflin & Co., Boston.

A series of sketches of mountain life in the mid-Southern country, painted in colors that contrast as sharply with each other as the varied emotions of the untutored people who dwell amid the primeval forests and rocks of that lonesome region. In the rough and strong-limbed blacksmith Vander Price, and in the illiterate Cynthia Ware and Cely Shaw, qualities of heart are developed that interest our deeper sympathies,—the crude ore of the mountain is shown to be rich in the gold of generous sacrifice and persevering endeavor. In Josiah Tait, Rufus Chadd, and Simon Burney are delineated with nervous touches, incoherent yet most striking, expressions of honest, philanthropic instinct. The management of the dialect is admirable, and is a main feature of interest to the reader. Mr. Craddock, in this respect, exhibits ability that is much removed above the commonplace, and has good claim on our mentioning his name in connection with Bret Harte and George Cable. We can not regard these studies of character as written for the mere pleasure of using the pen, or seeing one's-self in type; but as a conscientious endeavor to portray faithfully the spirit and motive of a class of men and women peculiar to a section of our country. The closing paragraph of this volume intimates that the author has done his work with a due respect for what there is of truth and nobility in his subject,—viz.: "The grace of culture is, in its way, a fine thing; but the best that art can do—the polish of a gentleman—is hardly equal to the best that Nature can do in her higher moods."

PUBLICATIONS RECEIVED.

WE have received from the old Travellers' Insurance Company, of Hartford, a copy of the official engraving of the Bartholdi Statue to be placed in New York harbor. It is a fine picture of that noble gift, and said to represent faithfully the enormous statue as it will appear when completed and standing in the midst of the magnificent scenery of New York harbor.

LE DEVOIR, No. 297, is an exceptional issue of that excellent organ of French co-operation. It contains a report of the Familistere of Guise, that

celebrated association of capital and labor which has been in operation many years, and has achieved an extraordinary success. It is, as claimed by the editor, a fair solution of the labor question, which economists should study with care.

A GENERAL CATALOGUE OF THE UNIVERSITY OF THE CITY OF NEW YORK,—the departments of art and science,—published in the semi-centennial year of the existence of that institution, will be gratefully received by the graduates and those interested in a most worthy educational establishment. We congratulate the Faculty on the recent donations that have been made by gentlemen who appreciate the value of the University to New York City, and are willing to promote its usefulness.

BEER AND THE BODY: Testimony of Physicians against this Great Evil; from the *Toledo Blade*. A striking and powerful arraignment of beer, founded upon authoritative data. A valuable pamphlet for the advocate of reform. Price, 5 cents. J. N. Stearns, publishing agent, New York.

ABBREVIATED LONG-HAND. By Wallace Ritchie. Suggestions in Punctuation and Capitalization, especially designed for the use of Type-Writer Operators. Published by the Hall Type-Writer Agency, Chicago.

FROM MUSICAL MEMORIES. By H. R. Haweis, author of "Music and Morals," "American Humorists," etc. 12mo, pp. 283. Price, 25 cents. New York: Funk & Wagnalls, publishers. The refined taste finds pleasure in reading such as Mr. Haweis gives to the world. His sphere, like that of Ruskin, is art; but if anything he is clearer, simpler than the eccentric editor of *Fors Clavigera*. In this volume he has linked together many sketches from his own life. A musician from a child, he talks about musicians with an earnest familiarity which interests the reader at the start. He talks of old violinists and violins; of Wagner, Mills, Spohr, and Rhode and Joseph; the performance of great compositions; here and there dropping hints of value to the student, critic, and connoisseur.

THE POPULAR SCIENCE MONTHLY, for May, gives the reader a sketch of Mary Somerville, a wonderful woman in every way, especially for industry, earnestness, perseverance, and determination; the apostle of evolution wields a sharp pen in exposing the "Sins of Legislators"; and other writers discourse on the "Beaver and His Works"; "The Progress of the Working-Classes in the Last Century"; "How Flies Hang On," in which the old sucker theory is exploded; "The Morality of Happiness"; "A Curious Case of Albinism," etc.

BROWNE'S PHONOGRAPHIC MONTHLY. Volume VIII., of 1884, is a somewhat bulky volume, and indicative of considerable progress from the small beginning which was made by its editor and proprietor eight years ago. Like electricity, short-

hand writing appears to have a widening future; and it is the evident aim of this publication to keep apace with its development, and if possible exert some influence on the direction of that development.

EVIDENCES OF THE ANTIQUITY OF MAN. By James Herman Whitmore. An essay which, in the space of about twenty-six pages, covers a wide field of research, with the aim to reconcile Biblical statement with scientific result. The author inclines to be of the theory that there were races before Adam,—not low and degraded and brutal, but developed mentally, and possessing a high degree of civilization.

THE CENTURY, for May, gives us glimpses of the Salem of Hawthorne, illustrated by very striking views of the town and harbor, and of Hawthorne's home and belongings; a classical article on "The Metopes of the Parthenon" is worth deliberate reflection; "Recent Architecture in America" shows that many ideas belonging to mediæval design have been introduced into our methods of building; "The Bay of Islands" relates to the region of Newfoundland; while "The Women of the Bee-Hive," a sketch of Mormonism, and "Chief Joseph, the Nez Percé," are among the other topics that are noteworthy.

THE CLEW OF THE MAZE, and A SPARE HALF-HOUR. By Rev. C. H. Spurgeon. 12mo, pp. 190. Price, 15 cents. New York: Funk & Wagnalls, publishers. Everything that Mr. Spurgeon writes has a practical application in every-day life, and the style and effect of his statements need no special description from us. He handles his topics without gloves; his illustrations are simple and forceful in all respects, and all who can read can understand him; the matter of learning or culture—"sweetness and light"—is unnecessary. His English is Anglo-Saxon in the main, direct and pointed. The first part of the volume is made up of short paragraphs, of sermonic directness. The Spare Half-Hour has a good deal of personal interest in it, and will perhaps be more interesting to the one who takes up the book.

Ogilvie's POPULAR READING, Number 4, contains four or five stories by popular authors, with a collection of Readings and Recitations. The stories are sentimental, comic, and otherwise. Price, 30 cents. J. S. Ogilvie & Co., New York.

HARPER'S MAGAZINE, for May, winds up the sixty-eighth volume of that venerable periodical. It is artistic and literary to the full high average of its quality. Among the conspicuous subjects that are discussed we should mention the Emperor William of Germany; Dr. Schliemann; The Era of Good Feeling, a political essay; From the Fraser to the Columbia River; The Bank of England; and Transcripts from Nature.

Publishers' Department.

NOTICE.—The Phrenological and Publishing Business, which has been conducted by S. R. WELLS & Co., is continued under the firm name of FOWLER & WELLS. Correspondents, Agents, and others, when communicating on business matters connected with this office, should address their orders to FOWLER & WELLS, 753 BROADWAY, NEW YORK, and not to any PERSON connected with the office. Postage-stamps received for fractional parts of a dollar. Do not tear them apart, and do not stick them to your letter. Prepay all letters in full with 2-cent stamps. Give name and full address every time you write.

Number 1, Volume 78.—This Number of the PHRENOLOGICAL JOURNAL is the first of the 78th volume. We feel justified in pointing with pride to the fact that the PHRENOLOGICAL JOURNAL has been published for so many years, and we consider that it may be a matter of congratulation that the JOURNAL has contained much that has been useful to mankind in promoting his best interests. The best pledge we can make for the future is to point to the past; and yet we are glad to say that we have plans which will, we believe, make the JOURNAL better for the coming year than it has ever been in the past. And in this connection we wish to bespeak the continued co-operation of our friends and readers. The publishers' ability to make a good JOURNAL is measured to a certain extent by its circulation; and if our readers will aid in this respect, it will not only help by enabling the publishers to make the JOURNAL better, but they will also help in extending its sphere of usefulness. A few words now would many times result in new readers.

Our Premium List.—On another page of this Number will be found our table of premium offers for 1894. For this we ask a careful examination. Please note the value of the articles, and the liberality of the offers which are made. We believe there is scarcely a reader of the JOURNAL who would not be glad to avail themselves of some of the propositions made. But if circumstances will not permit of this, may we not ask you to call the attention of some person to it who would be benefited by making up a club for the PHRENOLOGICAL JOURNAL. We publish a large descriptive premium list, which gives illustrations and other particulars, which will be sent on application; and we would also say, that any of these premiums will be sent to any address, on receipt of the cash price.

Agents Wanted.—A live, wide-awake agent is wanted in every town and neighborhood, to introduce our new cook-book, called "Health in the Household," a large volume of over 600 pages, which is certain to meet with ready sales, and one which agents who want to make it pay, would take up at once. Our special terms to agents will be sent on application.

Local agents are wanted to introduce our publications in all parts of the country. One who will make up a club for the PHRENOLOGICAL JOURNAL, distribute circulars, and take orders, will find an abundant opportunity of doing good and being paid for it. Our agents' terms will be sent to any address on application.

Health in the Household.—Since the publication of the last Number of the JOURNAL, this book has been received from the binders, and it is a royal volume, containing over 600 pages, in large, readable type, and is a great advance on any cook-book yet published. Our readers need not be told that the one trouble with most of the cook-books is that no thought is given as to the healthfulness of most of the dishes described. In Dr. Dodds' book this has been constantly in view.

For convenience of consultation and reference, the book is divided into three parts. Part one, called "The Reason Why," contains tables giving the constituent elements of different kinds of food, and the food value of cereals, fruits, vegetables, meat, milk, butter, eggs, sugar, salt, tea and coffee, and condiments, are all considered. The relations of food to physical development, as well as the influence of food on the intellect and morals; and a very important part is a chapter on food combinations, showing what can be best combined for palatableness and healthfulness, with general hints on cooking and dietetic rules.

The balance of the work is devoted to the matter of cooking, and divided into two parts—the first, devoted to what the author calls "The Hygienic Dietary," and gives full and explicit instructions in preparing the different kinds of strictly healthful dishes, including a great variety of bread preparations; the cooking, preservation, and use of fruits and vegetables in every form, important to all who wish to eat for strength and health. In the last part of the book, occupying more than one-half of the volume, is what may be called "a compromise" department, and is the result of an effort to so modify the present modes of cooking and eating, as to avoid, to a great extent, the most unhealthful features, and at the same time to meet the wants of those who are not prepared to adopt the strict hygienic plan. This covers the whole range of cooking, including everything that is useful in the average household. The work is likely to meet with a very extended sale, being handsomely bound, and a very attractive volume. Two editions are published, one bound in extra fine muslin, and the other in a special oil-cloth binding, which is very serviceable and easily cleaned in case it becomes soiled, and might be called a "kitchen edition." It will be sent by mail, post paid, on receipt of price, \$2.00, and persons are requested in all cases to state what style of binding is desired.

Our New Calendar for 1884 is now ready. This is pronounced one of the handsomest calendars yet made. It is a handsome lithograph in bright colors, and ready to hang up. It will prove ornamental wherever it may be placed. Sent to any address, on receipt of five cents in stamps.

A New Holiday Book.—"A Bachelor's Talks about Married Life," now ready, is a very handsome volume, elegantly bound, with elaborate ink and gold side and back stamps, printed on fine paper, and in every way a suitable holiday present. Those who are just starting in married life will be specially interested and profited by it. The author writes from a bachelor's stand-point, and his criticisms and comments are interesting and practical, and the book will be found interesting from the first to the last talk. On another page will be found a partial table of contents. We have also published a new edition of "Life at Home," by the same author, and uniform with the above. Either of these will be sent by mail, post-paid, for \$1.50. Full gilt, \$2.00.

Mothers and Daughters.—We wish to call attention to a new book now in press, by Mrs. Dr. E. C. Cook, called "Mothers and Daughters," a manual of hygiene for women and the household. We have here a very suggestive volume, and one full of importance to those for whom it is specially prepared. The work opens with a chapter on the importance of physical culture, which is followed by chapters on the bones and muscles, the brain and nervous system; the structure and care of the skin; hygiene and ventilation; intemperance; a chapter devoted to bread and butter, in which there is a careful analysis of the processes of digestion, in which this matter is made plain and practical. A large portion of the book is devoted to the subject of displacements and other diseases to which women are subject. The feeding of children; the rights of children; the question of education, etc., are all discussed, and the work is fully illustrated by a number of fine engravings. It is safe to say, that if this book was placed in the hands of the mothers and daughters of these times, there would be a great improvement in their physical, and therefore in their moral and mental well-being. It is a handsome volume of over 300 pages, beautifully bound, and would be a most acceptable present to either wife or daughter. Will be sent by mail, post-paid, to any address, on receipt of price, \$1.50.

Your Daughters who are ten years old and upwards, should have given to them a copy of Mrs. Shepherd's admirable little book, "For Girls." No parent can have done his or her duty to the daughter, until the information contained in this volume is placed in her possession. As an evidence of the approval with which this book has met among the mothers of our land, we are pleased to state that we are now selling the last of the fourth large edition. Mothers who wish to know something of the character of the book, and what is thought of it by intelligent and representative people, should send for our circular to mothers. The price of the book is made low, considering its size and character in order that this may not stand in the way of its having a wide circulation, and on receipt of price, \$1.00, it will be sent by mail, post-paid, to any address.

Our New Premium List for 1884, an illustrated pamphlet of 32 pages, containing full descriptions of our premiums, terms to agents for the books, etc., and full instructions to agents, will be sent on application. Address this office.

Tea and Coffee.—On account of unexpected delays the publication of the new edition of this book, which has been announced for some time, has been necessarily delayed, but we are glad to announce that the new edition is now ready to be mailed, and all orders received will have been filled before this Number reaches our subscribers. Those who are using these beverages on the supposition that they are beneficial to them, should send 25 cents for this little work, and read what is said by the best authority on this subject; and those who would fortify themselves against the arguments used in its favor will also be interested. Mr. Sizer has made notes and additions enough to nearly double the size of the former edition. We will send to any address, by mail, post-paid, for 25 cents, or 5 copies for \$1.00. Address this office.

The College of Oratory and Acting.—We have received from Prof. J. E. Frobisher, the director of this institution, his announcement for the coming year, setting forth the work he has undertaken and the results already achieved. Prof. Frobisher is a thorough teacher as well as a successful professional elocutionist, and he numbers among his pupils many who are now on the stage and platform. Our readers who are interested in the subject, and would like to know more in regard to it, can obtain the knowledge by addressing Prof. J. E. Frobisher, 23 East 14th Street, New York.

The Elocutionist's Annual, Number 11, published by the National School of Elocution and Oratory, Philadelphia, contains new and popular readings, recitations, declamations, dialogues, tableaux, etc., edited by Mrs. J. W. Shoemaker. There are selections from all the leading authors, including those which are humorous, pathetic, and dramatic. There is an evidence of care in the choice made, and the widest range of adaptations are included. Amateurs and professional readers and elocutionists will find this very useful. Price, in paper, 35 cents; in cloth, 60 cents.

W. L. Thurston, of Bangor, Maine, writing to the Health Food Co., says:

"The good work still goes on. 1624 lbs. solid flesh 'hang o'er me' each day. I am a walking, living, and striking example of the value of your good foods. I have been using my brain rather too much in arranging for settling my business, so have not accomplished as much walking as I ought, but from the first, have not had a serious pull-back, and all through the strain gained flesh with a moderate appetite. I think it may be the result of muscle hardening. My nerves have not been so well for ten years, and my future course now looks clear and easy. Yours, W. L. T."

RATES FOR ADVERTISING.

One Full Page.....	\$75.00
One Half Page.....	40.00
Less than Half Page, .50 cts. a line, agate measure	
Second or Third Page of Cover, or First and	
Last Page of Inset.....	\$150.00
Last Inside Page.....	180.00
Fourth Page of Cover.....	Special Rates.
Business Cards.....	75 cts. a line.
Business (Reading Matter).....	\$1.00 a line.

Advertisements must be sent in by the first of the month, to be in time for the month following. No extra charge for inserting cuts. No objectionable advertisements accepted at any price.

Publishers' Department.

NOTICE.—The Phrenological and Publishing Business, which has been conducted by S. R. WELLS & Co., is continued under the firm name of FOWLER & WELLS. Correspondents, Agents, and others, when communicating on business matters connected with this office, should address their orders to FOWLER & WELLS, 753 BROADWAY, New York, and not to any PERSON connected with the office. Postage-stamps received for fractional parts of a dollar. Do not tear them apart, and do not stick them to your letter. Prepay all letters in full with 2-cent stamps. Give name and full address every time you write.

The Subscription Price of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH is \$2.00 a year, payable in advance, or \$2.25 when premiums offered are sent to subscribers.

Money, when sent by mail, should be in the form of Money Orders, Postal Notes, Drafts on New York, or Registered Letters. All Postmasters are required to Register letters whenever requested to do so.

Silver or other coin should not be sent by mail, as it is almost sure to wear a hole in the envelope and be lost.

Postage-Stamps will be received for fractional parts of a dollar. These should never be stuck to the letters, and should always be sent in sheets; that is, not torn apart.

Change of post-office address can be made at any time by giving the old as well as the new address, but not without this information.

Letters of Inquiry requesting an answer, should inclose stamp for return postage, and be sure and give name and full address every time you write.

All Letters should be addressed to Fowler & Wells, and not to any person connected with the office. In this way only can prompt and careful attention be secured.

Any Book, Periodical, Chart, etc., may be ordered from this office at Publishers' prices.

Agents Wanted for the PHRENOLOGICAL JOURNAL and our Book Publications, to whom liberal terms will be given.

Our Premium List, giving complete descriptions of the Premiums offered to subscribers, sent on application.

Our Descriptive Catalogues will be sent to any address on receipt of stamp for postage. Address

**FOWLER & WELLS, Publishers,
753 Broadway, New York.**

For Twenty Years.—We take the liberty of printing the following appreciative letter:

“EMPORIA, KANSAS, December, 17, 1883.

“MESSRS. FOWLER & WELLS: The premium, ‘Diseases of Modern Life,’ received. I think that you could not have chosen any better book upon the subject. I can substantiate a great deal of what is said from personal experience in regard to overlifting, and if the book were read by the majority of mechanics and laboring men it would save an untold amount of pain and misery. I am in duty bound to say a word of encouragement and approval of the works published by FOWLER & WELLS. It is over twenty years since I became a reader of THE PHRENOLOGICAL JOURNAL, and through the JOURNAL I was introduced to works of Dr. Trall, the great apostle of Hydropathy. It has saved me hundreds of dollars, and last July was the means of saving my little boy from summer complaint, after he had been given up to die by the doctor. We thought it best to call a doctor to see him or else our neighbors would say that we caused his death through neglect. Ideas are beginning to change here of late. I will not burden you any more at present with multiplication of words, but I feel it a duty to thank you once in twenty years for good advice given, and further, that you have been the means of setting one upon the right track.

“Yours respectfully, WM. COMBETT.”

More Evidence.—The following furnishes additional evidence of the value of our publications:

“WHITE ASH, December 10, 1883.

“Would you please be so kind as to let me know if you will continue to publish THE SCIENCE OF HEALTH.

“I have lately come into possession of some of the first numbers published in 1872 and 1873, and I am convinced from reading them, that health can only be maintained and restored, if lost, on hygienic principles.

“I have been in my experience like the poor woman in Mark's Gospel, who had an issue of blood for twelve years, ‘And suffered many things of many physicians, and had spent all that she had, and was nothing bettered, but rather grew worse.’

“My case was a poor stomach and has been troubled for eight years. Tried Allopathic, Homeopathic, Herbalists, etc., nothing bettered, only grew worse.

“I see from THE SCIENCE OF HEALTH that the cause of all my dyspepsia was my transgression of hygienic principles and that alone will restore me. No drugs have entered my mouth since reading THE SCIENCE OF HEALTH, and I feel better. What a world of delusion we live in.

“Yours respectfully, J. B. F.”

NOTES ON OUR PUBLICATIONS.

[[OUR new books and new editions for the past year are now before the public, and being well received.

Health in the Household, or Hygienic Cookery, (\$2.00), is receiving words of praise from all directions. We print below a few brief extracts from

NOTICES OF THE PRESS.

"This work contains a good deal of excellent advice about wholesome food, and gives directions for preparing many dishes in a way that will make luxuries for the palate out of many simple productions of Nature which are now lost or preserved by a vicious cookery."—*Home Journal*.

"Another book on cookery, and one that appears to be fully the equal in all respects, and superior to many of its predecessors. Simplicity is sought to be blended with science, economy with all the enjoyments of the table, and health and happiness with an ample household liberality. Every purse and every taste will find in Mrs. Dodds' book, material within its means of grasp for efficient kitchen administration."—*New York Star*.

"She sets forth the why and wherefore of cookery, and devotes the larger portion of the work to those articles essential to good blood, strong bodies, and vigorous minds."—*New Haven Register*.

"She evidently knows what she is writing about, and her book is eminently practical upon every page. It is more than a book of recipes for making soups, and pies, and cake; it is an educator of how to make the home the abode of healthful people. The writing is systematic, precise, and no recipe is given, we are assured, that has not been fully and carefully tested."—*The Daily Inter-Ocean, Chicago, Ill.*

"The book is a good one and should be given a place in every well-regulated *cuisine*."—*Indianapolis Journal*.

"As a comprehensive work on the subject of healthful cookery, there is no other in print which is superior, and which brings the subject so clearly and squarely to the understanding of an average housekeeper. The recipes, as well as the information, general directions, etc., are given in explicit, simple language, so that no one can mistake them."—*Methodist Recorder*.

"We see no reason why it should not go into every household. The recipes are numerous and, we judge, admirable. We believe those for preparing cereals, cooking fruits and vegetables, making the least objectionable sorts of pastry, are among the best available. The book is desirable on that account and we recommend it to our readers as a valuable addition to the store library."—*American Grocer*.

A Bachelor's Talks About Married Life and Things Adjacent, (\$1.50), is one of the handsomest volumes we have ever published. Like the author's former work, "*Life at Home*," it discusses the most intimate of domestic relations from a practical standpoint. His chapters are not prolonged essays, but short, sprightly, and cheerful, agreeable to read and to be heard read. It is just the book to be placed in the hands of young people about to be married; excellent for those who are married, and well suited to those who know but little of this institution. Our readers who wish for some delightful reading should send for this.

Life at Home, or the Family and Its Members, (\$1.50).—We have published a new edition of this, uni-

form in size, style, etc., with "*Bachelor's Talks*." Of the first edition of this book, the *Prairie Farmer* says:

"This book is full of hearty good sense. Every husband who reads it will be the better husband; and every wife will draw from it strength to make home pleasant."

The *New York Observer* said: "We would have a copy in every house."

For Mothers and Daughters; a Manual of Hygiene for Women and the Household, (\$1.50).—We have here a practical and useful volume, and one which should find its way into the hands of every woman who prizes good health for her own sake and for the sake of others. It contains chapters on physiology and hygiene, conveying information on these subjects in a plain and intelligible manner; also chapters on the diseases of women and their special care and treatment; also the care and training of children. Ladies can do well in introducing this work.

Health by Exercise, (\$1.50).—Under this title we have published a new edition of Dr. Taylor's work on the Movement Cure, which has been out of print for some time. This is the most important work published on the promotion of health and strength by systematized exercise, and one which has already, in former editions, been widely circulated.

Horses, Their Feed and Their Feet, (50c.)—This new manual of horse hygiene, by Dr. Page, is attracting widespread attention, and is being read and discussed in all directions. The ideas and suggestions given are new, and as experience is proving, most invaluable. A new edition is nearly ready, containing several pages of additional matter, and also a number of full-page illustrations of famous horses, including "Jay-Eye-See," "Alcantara," "Parole," "Eole," "Miss Woodruff," and others, with specimens of the "Clydesdale," "Norman," "English Draught Horse," etc., making it a very attractive as well as useful volume. Agents can do well with this, as horse-owners are always interested in horse books.

The *Farm Journal*, a live publication issued at Philadelphia, says:

"We believe the most sensible and useful book on the care and management of Horses ever issued in this country, is that of Dr. Page, entitled: '*Treatment of Horses, their Feed and their Feet*,' published by Fowler & Wells, New York. We say distinctly and emphatically that every farmer in America ought to have a copy of it. We have no earthly interest in saying so except our desire to benefit our readers. There have been so many silly, sickening, nonsensical books on the horse printed that it is a relief and a pleasure to commend this common-sense and practical work to the public."

The Health Miscellany, (25c.), is a collection of important papers on health subjects, illustrated with more than fifty engravings; containing chapters on the External Senses; the Cause and Cure of the Back-ache, especially in women; Dr. Trall's celebrated article on Chronic Catarrh, Causes and Treatment; a chapter on Ethnology and Races of Men; "Bodily Positions and Dress in relation to Health and Form," fully illustrated. An extended article on "The Structure and Care of the Teeth"; Sir Edward Bulwer-Lyt-

ton's "Confessions of a Water-cure Patient," "Hygienic Agriculture and Hygienic Dwellings," an article on "Getting Used to Unhealthy Habits," "The Causes of Malarial Diseases," "The Treatment of Rheumatism," etc. From the above it will be seen that this pamphlet must be worth, to any one interested in health subjects, much more than its price, which is only 25 cents.

For Girls, (\$1.00).—Mrs. Shepherd's work on health and hygiene for girls is meeting with rapid sales. The fifth large edition is now printing, and the book is doing a vast amount of good. We hope every mother of a young girl will send for this, or at least send for the circular for mothers, containing the author's address to them, and the opinions of representative people in regard to this book.

THE FOLLOWING APPRECIATIVE LETTER

from a successful teacher should be read by other teachers of young ladies, who should follow Mrs. Webster's example, and place this work in the hands of their girls:

"AURORA, Ill., November 19, 1883.

"**FOWLER & WELLS.**—*Gentlemen:* I have carefully read 'For Girls' and feel that nothing can more fully express my great interest in this pure and practical little book than to say, I have placed it in the hands of our young ladies.

"For some time past we have held weekly meetings, in which all matters of health have been fully discussed. For Girls' will be of the greatest possible assistance to us.

Mrs. H. B. WEBSTER, Preceptress,

"*Jennings Sem. and Aurora Normal School.*"

HOW TO FEED THE BABY (50 cents).—

Dr. Page's work on "Infant Diabetics" continues to attract the attention of thinking parents and physicians who profit greatly by its teachings. We take the liberty of publishing the following letter received by the author:

HOW THE SYKES FAMILY WAS MADE

HAPPY.—The following letter explains itself:

"WARE, MASS., December 10, 1883.

"**DR. C. E. PAGE,** 180 West 44th Street, New York.

"**DEAR SIR:**—Our baby was born on the 29th of December, 1883, and was a nice plump fellow; but as the mother could not supply him with his natural food, we tried milk and water, feeding him every two hours. That not agreeing with him, we tried 'Mellen's Food,' and gave him that as often, day and night. If he cried we supposed he was hungry, and would fill him up again. Finally we had a sick child all the time. He had congestion of the lungs twice, and was a very sick baby till he was four months old, and the doctor said he did not think it would live through the summer. A good many others thought the same; but at that time I saw a notice of your book, 'How to Feed the Baby.' I immediately sent for and read it carefully. We were very much impressed by its teachings, and abandoned the patent food, but thought the advice as to number of meals rather extreme, and so began by feeding cow's milk, but oftener than you recommended. He immediately began to improve. We fed him thus for a time, but soon decided to adopt your system entire; and the result soon was all that we could ask. Now we have a well baby, who goes to sleep at 6:30 P.M., and sleeps all night, besides having

two naps of two hours each during the day; and he is a joy and a comfort to the household. Feeling sure that the author of such a book must be gratified to know of experiences like ours, I have written this, and to thank you for the good we have all received from it.

"Respectfully yours,
C. A. SYKES."

THE FOLLOWING SPEAKS VOLUMES

FOR ITSELF.—Walter Woodman, M.D., of Portland, Me., a physician of high standing in his city, thus speaks of his experience with Dr. Page's theory of rearing infants. He has put the system taught in "How to Feed the Baby" to a test with his own infant, who at the time of writing was two months old. He says:

"The baby is very strong, and *not fat*. To the horror of his nurse he has gained but a trifle over two pounds in two months; nor does it comfort her, as it does his parents so fully, to point to the fact that he has held his head erect from the moment of his birth, that his eyes have never been dimmed, that his color has always been good, that he has slept what in most babies would be considered the sleep of pargoric, and that his strength is phenomenal."

This babe has never been nursed at night. He has nursed five times during the day, and only five, from the first. As this did not fatten him, there seemed no occasion for reducing the number of meals. In many cases it would shortly prove necessary to reduce the nursings to four, perhaps to three, unless the parents were satisfied to have their babes suffer from colic and become obese in order to be "in the fashion," regardless of the dangerous, perhaps fatal consequences.

This is the kind of testimony we are receiving from those who have sent for this little work and followed its suggestions. Fifty cents can be invested in no other way that will bring so good returns as in sending for "How to Feed the Baby."

IN PRESS.

The following works are now in press; some of them have been previously announced, but the publication has been somewhat delayed:

A Catechism of Phrenology, (50c).—Illustrating the principles of the science by means of short conversations, questions and answers. This work, which was first published in Edinburgh many years ago, had a wide circulation. It has been out of print since the death of the author, and this new edition has been carefully edited and revised by Mr. Sizer, making it even more practical and useful than before. It presents the subject in a familiar manner, and is especially adapted for use among the young.

Comparative Physiognomy, or Resemblances between Men and Animals, by James W. Redfield, (\$2.50).—This unique work has been out of print for many years. We have in press a new and handsome edition, containing 310 engravings, and includes the resemblances of human beings to beasts and birds of all classes. The Germans to lions; the Laplanders to Reindeer; Englishmen to bulls; Italians to horses; Yankees to bears, etc., etc. In illustrating these resemblances the portraits of many famous people are used. To all students of human nature, and especially those who are interested in physiognomy, this work will be of great interest.

How to Study Character, or the True Basis of the Science of Mind, (50c).—This work, which is now nearly ready, will prove one of the very best possible arguments in favor of Phrenology as being the only reliable method for the estimate of character. It is written by a Harvard College graduate.

HALF HOURS WITH THE LESSONS OF 1884.

Chapters on the Bible Texts Chosen for Sabbath-school Study during 1884, in Connection with the International Series. By Twenty-four Presbyterian Clergymen. Published by the Presbyterian Board of Publication, Philadelphia, Pa.

The general adoption of the International Series of Sunday-school Lessons has created a large demand for special helps to Bible study for Sunday-school teachers and scholars. We have here a volume that must prove of great service to all Bible students, containing brief discourses by eminent clergymen, including Drs. Hall, Croeby, Cuyler, Robinson, Booth, Hodge, Willson, Ganse, and others, taking up the different subjects laid down for the Lessons for the coming year. Teachers looking for the best of helps, should not fail to examine this work.

Without Credit.—A recent number

of a California paper copies from "Horses: Their Feed and Their Feet," Col. Weld's article on horse-shoeing, which it published without credit; and in the editorial page they refer to it, saying: "Every owner of a horse should read this essay; one of the best yet published." We are glad to have the public have the benefit of Col. Weld's views, but we think it would have been fair on the part of the editor of that paper to have given credit to the book from which it was copied.

An Old Soldier who served during the war says: "I consider the publications issued from the Phrenological Publishing House of Fowler & Wells are the best in the world to benefit mankind, and I take solid comfort in reading the JOURNAL, for which I desire to subscribe as long as I live."

Earth-Closets.—For all houses outside of cities that have a thorough system of sewerage, there is no plan that will compare at all favorably with the Earth-Closet. We wish to call the attention of our readers to the advertisement of "The Meyers Sanitary Depot," and especially to the Earth-Closet which they advertise. We have used a commode of this kind a dozen years, and know that it will do all that is claimed for it, and could we not replace it, would not be without it for many times its cost. It does away with any necessity for those abominable nuisances of country life, "privies," can be used in any room, in a closet inclosed on the stoop, in the barn, or wherever desired. Produces a fertilizer that pays a better interest on the investment made than could be obtained from any other source that we know of, to say nothing of the preservation of health of women and children, and the purity of the general atmosphere of the neighborhood. We can recommend our readers, every one of them, to send for descriptive circulars for this. Address "Myers Sanitary Depot," 94 Beekman Street, New York City. Mention the PHRENOLOGICAL JOURNAL.

"The Scientific American."—This is one of the most useful and interesting publications issued in this country, especially so to all thinking, practical, scientific people. But it deals also with much of general interest. It is published by Messrs. Munn & Co., 201 Broadway, at \$3.20 per annum. Is clubbed with the PHRENOLOGICAL JOURNAL at \$4.75. Address this office.

Health in a Garden.—The peculiar

tendency of American people, when they feel out of sorts, to dose themselves with various nostrums, and avoid, when possible, outdoor exercise, is one of the failings of American character. There are many instances recorded where ladies in delicate health, suffering from various diseases, have, acting under the advice of physicians, been restored to health by simply devoting a few hours each day to work in their garden. In order to do this it is necessary to have a garden, and in order to have a garden it is necessary to procure seeds, plants, etc., for growing therein; and to be enabled to procure seeds with the certainty of obtaining those that will grow when planted, is the object of our little notice. By referring to our advertising pages, a department will be found filled with the announcements of the leading houses of this kind who supply seeds, plants, etc., for garden purposes. Seedsmen and Nursermen who spread their announcements before the public, attaching their own name to their own goods, are thoroughly responsible and invariably give a good article, and it is only those who prepare their goods for market and sell the same through any corner grocery without taking any personal responsibility themselves, that palm off upon the purchaser inferior and worthless goods; therefore we recommend our readers to patronize those who are not ashamed to brand their goods with their own name.

The National Educational Association.—We have received from Mr. H. R. Sandford,

Middletown, N. Y., the Secretary, an announcement of the meeting of the "Department of Superintendents" of this Association, to be held in Washington, D. C., February 12th, 13th, and 14th. This announcement gives the names of some of the subjects to be discussed; including "Industrial Education," "Southern Education," "Indian Education," "Superintendents' Duties," "Color-Blindness," etc., with the names of some who are to take part in the discussions. All interested in this, whether desiring to attend, or otherwise, can receive additional information by addressing Mr. Sandford as above.

The Whispers of Peace says:—

THE PHRENOLOGICAL JOURNAL still holds on its way, advocating truths which are scouted by many who are deemed wise among men, but which, nevertheless, have created a wonderful change in popular thought within the last twenty-five years, and that are destined to lift the human race to a higher level as the years go by.

That there are many who agree with the opinion of the Editor, the Rev. Dr. Platt, is proven by the circulation of the JOURNAL and the hold which its opinions have on many people.

A Teacher says:—"DEAR SIR: I

have been a reader of the PHRENOLOGICAL JOURNAL, and a reader of your publications for four years, and I have been amply repaid for cost of time and money. I am a teacher, and it aids me greatly in reading the nature of my pupils. I think every young man should take the PHRENOLOGICAL JOURNAL. I can not do without it, and send my name again for another year.

"Yours respectfully, J. W. P."

Publishers' Department.

NOTICE.—The Phrenological and Publishing Business, which has been conducted by S. R. WELLS & Co., is continued under the firm name of FOWLER & WELLS. Correspondents, Agents, and others, when communicating on business matters connected with this office, should address their orders to FOWLER & WELLS, 753 BROADWAY, NEW YORK, and not to any PERSON connected with the office. Postage-stamps received for fractional parts of a dollar. Do not tear them apart, and do not stick them to your letter. Prepay all letters in full with 2-cent stamps. Give name and full address every time you write.

The Subscription Price of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH is \$2.00 a year, payable in advance, or \$2.25 when premiums offered are sent to subscribers.

Money, when sent by mail, should be in the form of Money Orders, Postal Notes, Drafts on New York, or Registered Letters. All Postmasters are required to Register letters whenever requested to do so.

Silver or other coin should not be sent by mail, as it is almost sure to wear a hole in the envelope and be lost.

Postage-Stamps will be received for fractional parts of a dollar. These should never be stuck to the letters, and should always be sent in sheets; that is, not torn apart.

Change of post-office address can be made at any time by giving the old as well as the new address, but not without this information.

Letters of Inquiry requesting an answer, should inclose stamp for return postage, and be sure and give name and full address every time you write.

All Letters should be addressed to Fowler & Wells, and not to any person connected with the office. In this way only can prompt and careful attention be secured.

Any Book, Periodical, Chart, etc., may be ordered from this office at Publishers' prices.

Agents Wanted for the PHRENOLOGICAL JOURNAL and our Book Publications, to whom liberal terms will be given.

Our Premium List, giving complete descriptions of the Premiums offered to subscribers, sent on application.

Our Descriptive Catalogues will be sent to any address on receipt of stamp for postage. Address

**FOWLER & WELLS, Publishers,
753 Broadway, New York.**

Where is the Trouble?—We received from James J. Brown, of New Haven, Conn., a letter containing 40 cents for "Mind in the Face." No street or P. O. box address was given, and the book was mailed to the New Haven P. O. Some time after we received a complaint from Mr. Brown that the book had not been received. Soon after that a notice from the postmaster came, informing us that the book had not been called for, and requesting stamps for return postage, which we forwarded and in due time received the book. Another complaint came from Mr. Brown, which we answered, and this letter is returned to us uncalled for. Now in a case like this, what can be done? We neither wish to have Mr. Brown a loser by the transaction nor do we wish to have our reputation injured by the fact that he has not received the book sent for. But have we not done all that we can do, and is the fault not his? In all cities it is safe and proper that the street and number be given; it will be likely to save much trouble and annoyance.

A Retired Physician sending an order for some of our publications says: "I am a phrenologist in faith; used to take your PHRENOLOGICAL JOURNAL, and have your phrenological works, bust, etc.; but I am too old now to take these or any other publications, having retired from the practice of medicine. But I still say, God bless Phrenology and its honest teachers and exponents. For it is but another revelation of God, written upon the brain of man; and it does not conflict with the one written by His Spirit in the Book of books."

"If all religionists understood the one revelation well, the other revelation would be understood better, and sectarianism would cease in favor of a united Christianity."

A Teacher says: "Eight years of practical experience in the school-room has proved to me that a teacher can not well afford to be without THE PHRENOLOGICAL JOURNAL." This is the experience of many teachers, and would be the experience of all, were the practical truths of Phrenology adopted and applied in their work.

Books for Women.—We have published a large catalogue, giving extended descriptions of the various works we publish especially designed for circulation among women. It will be admitted by all, that women should read more than they do of works devoted specially to themselves and their interests. Therefore we would like to send this catalogue to every lady reader of THE PHRENOLOGICAL JOURNAL. In sending for it, please ask for list of "BOOKS FOR WOMEN."

The Hygeian Home Cook-Book ; or, Healthful and Palatable Food without Condiments. Fifth edition. Price, paper 25 cents, cloth 50 cents. Fowler & Wells, Publishers, 7-3 Broadway, New York.

A new edition of this excellent manual of healthful cookery has been published. It is not a work on the philosophy of food, but one giving recipes for its healthful and palatable preparation. Under the head of "Breads," following the general rules, are thirty-five recipes giving instructions for making all kinds of breads, from the raised loaf to "corn dodgers." We have instructions for cooking the various grain preparations under the head of "Mashes." The part relating to pies and puddings is very full, and new and improved methods of preparing vegetables are also given, together with instructions for preserving fruits by canning, drying, etc., and it would be hard to find more condensed in a small space than is given in this home cook-book. It tells the readers how to live if they desire health and strength. It will be sent to any address by the publishers on receipt of price, 25 cents, in postage-stamps.

Tea and Coffee : Their Physical, Intellectual, and Moral Effects on the Human System. By Dr. A. Alcott, with notes and additions by Nelson Sizer, author of "Forty Years in Phrenology," "How to Teach," "Choice of Pursuits," etc. 16mo. 118 pages; paper, price 25 cents. Fowler & Wells, Publishers, 733 Broadway, New York.

Dr. Alcott's work on the use of Tea and Coffee, first published many years ago, has done much to call attention to the effects of the use of these articles. In the new edition Mr. Sizer has presented in the form of notes many additional facts brought out by the increased knowledge of the subject.

PART FIRST opens with the history of tea, showing its exhilarating properties, when it was introduced, the amount consumed, and its increase. It is shown to be a medicinal substance, and to have the effect of a powerful drug, also that it is a poison and produces a tendency to disease. The origin of the use of coffee is also given, with its effect both on the body and the mind. It is shown that some suffer more from the use of it than others. It is the opinion of eminent authorities, that even a moderate use of these articles produces diseased conditions; and we would recommend those who are using either of the above articles with the thought that they are not harmed, and also those who have not acquired the habit, to procure this little work and read what is said on the subject. The publishers will send it on receipt of price, 25 cents, in postage-stamps.

The Health Miscellany.—This is the title of an illustrated octavo pamphlet published at 25 cents by Messrs. Fowler & Wells, 733 Broadway, New York. It contains a series of papers devoted to important health topics, opening with an excellent article on the External Senses, with illustrations of the eye, ear, nose, tongue, and skin, giving important information in regard to the functions and also the care of these important organs of the body. The next is an illustrated article on the Cause and Cure of the Back-ache, especially found among so many women. An extended article on Chronic Catarrh points out its causes and the proper treatment. A chapter on Ethnol-

ogy is illustrated with a number of portraits showing the races of men. A very important paper is one devoted to Bodily Positions and Dress in relation to health and form. The Teeth, their use and care, containing illustrations showing how the teeth are formed and grow, why and how they decay. The work also contains "Confessions and Observations of Sir Edward Bulwer-Lytton," originally published anonymously, under the title "Confessions of a Water-cure Patient," written in his peculiarly attractive style; is most entertaining and profitable reading. The Cause of Malarial Diseases is one which may be read profitably in almost every community. Getting Used to It shows how the system appears to get used to unhealthy habits. Fat Folks and Lean Folks shows how to treat these two conditions. Rheumatism is the subject of another article. We also have Medical Electricity; Position on Horseback; Trichina Spiralis; Hygienic Dwellings; Wheat, and the true way to use it; The Bath in Small-pox; etc.

The people need educating in this direction, and certainly no better use could be made of twenty-five cents than to send for this work.

Farms and Gardens.—It is safe to assume that a very large proportion of our readers are interested either in farms or in gardens, and with all such we wish to have a word. The time for old-fashioned farm and garden work is past—the people are now on the lookout for new and improved plans, methods, varieties, etc.; and in this connection we wish to call attention to our advertisements of farm and garden supplies of all kinds. In the JOURNAL for last month and this will be found a large number of advertisements of seed-men, nurserymen, florists, etc., offering novelties, as well as the standard varieties. Every owner of a rod of land will gain some new suggestions from the reading of the seed-man's catalogue. They all contain something new and suggestive, and we would therefore recommend our readers to send for them as per terms given in the various advertisements, and we would also recommend the testing of the new varieties. While it is not true that all new things are better than old ones, it is true that the great improvements recently made in the varieties of grapes and small fruits, vegetables, etc., have come from the introduction of new varieties, and more skillful culture, and we would like to know that every one of our readers was trying something new. The great superiority of the "American Wonder Pea," the new kinds of corn, cabbage, and cauliflower, the great attractiveness of the "Little Gem Squash," the value of the "Manchester," the "Hansell," and other berries, could only be established and taken advantage of by their being widely tried and introduced. A small amount of money spent to start with, will result in your having greatly improved varieties; then by a careful system of exchanging seeds, plants, etc., the whole neighborhood is benefited. We therefore say, send for catalogues, and then send for the novelties and new varieties.

Our New Catalogue.—We have published a new and enlarged edition of our catalogue, containing full descriptions, plates, notices, etc., of many of our books, which we will send to any address on receipt of stamp for postage.

"Green Peas."—Among the early garden productions there is nothing more palatable and attractive to the most of people than "green peas," and in this connection we wish to call attention to the advertisement of Messrs. E. K. Bliss & Sons, in this Number of the JOURNAL, who offer varieties which will produce a successful throughout a long season.

The "American Wonder Pea" has been thoroughly tested, and with us, and so far as we know, with others, has proved indeed a wonderful acquisition, and we are assured by Messrs. Bliss & Sons, the new peas are fully equal to this. We can simply say to our readers, send for them and plant them. A comparatively small investment in the new and improved varieties of fruits, vegetables, and grains often proves of great service to the person making the investment as well as to the neighborhood in which he lives. See Messrs. Bliss & Sons' advertisement and send for their circulars.

Books for Mailing.—We wish to say to our subscribers and friends that if for any reason they have occasion to send to us, or to others, books by mail, they should not be sealed up tightly, but left so that at least the ends can be opened for inspection by untying the string. Otherwise the person receiving the package is charged full letter postage, amounting sometimes to more than the value of the book.

Roses.—In this Number of the JOURNAL will be found the advertisement of the "Dodge & Conard Co.," so well known as large growers of roses. They have given special attention to the subject for many years, and their "Guide to Rose Culture," giving descriptions and directions for cultivation, which will be sent free to any of our readers, will be found of special interest. See advertisement and send for catalogue.

Trees.—Messrs. Ellwanger & Barry, of the Mount Hope Nursery, Rochester, N. Y., are well known as the growers of fine trees, both fruit and ornamental; and our readers in need of stock of this kind, and all who could find room for additional trees, may feel perfectly safe in sending as above for catalogue and then ordering stock.

Flowers, etc.—We have received from Mr. Joseph T. Phillips, of West Grove, Pa., his annual catalogue for 1884 containing descriptions and directions for the cultivation of roses, green-house and bedding plants, together with farm and garden seeds. Mr. Phillips, as we know from experience, sends out good plants, and his statements can be relied upon fully. See special offers in his advertisement.

Vick's Floral Guide.—The mention of this carries with it the idea of one of the handsomest publications of the kind ever issued; and the reading of it will certainly create in any one a love for flowers. We can not see how it is possible that any person who has the use of a rod; yes, we might say of a square foot of land, would be willing to be without its suggestions. On another page will be found Mr. Vick's advertisement; also the advertisement of his illustrated monthly magazine, published in the same interest, and deservedly popular.

Mr. F. R. Pierson, of Tarrytown, N. Y., sends us his catalogue of seeds, plants, and garden supplies of all kinds for country homes. This contains full and complete descriptions of the new and standard plants, and many new things which Mr. Pierson has been and is introducing. Among others is the "Bermuda Easter Lily," a cut of which appeared a few months since in the JOURNAL; he also has a "Golden Coleus," which is considered very desirable. In this Number he advertises a new potato, and also a new rose; both worthy of special attention. Our readers should send for the catalogue, then give some of his new varieties a trial.

Hardy Plants.—We have received from Messrs. Woolson & Co., of Passaic, N. J., their catalogue of hardy perennial plants, tubers, ferns, etc., containing a complete list of herbaceous and other hardy plants. It is the most complete catalogue published by any dealer in this country, and through it is placed within the reach of all plants that are hardy, and will thrive without special care or attention, including the old standard varieties, many of which are overlooked very much by the present generation, together with new and imported varieties.

The "Saw-Mill Gazette."—This is the title of a special journal devoted to the interests of saw-mills, planing, shingle, and lathe-mills, saw-h, blind, and door factories, published by M. T. Richardson, 47 Barclay Street, New York. It is issued on fine, super-calendered paper, handsomely illustrated, and contains a great amount of information useful to all interested in the specialties to which it is devoted.

Mr. Richardson will send a sample copy to any of our readers who will address him as above.

Trees and Plants.—We have received from Mr. J. T. Lovett, of Little Silver, N. J., his catalogue for 1884. This is in every way an attractive list. The cuts illustrate many new and improved varieties of strawberries and small fruits, including grapes, etc. Mr. Lovett, although a young man, has already become well known on account of his efforts in introducing new and useful varieties. The Manchester strawberry and Hansell raspberries have been made widely known through his efforts, and he is now offering a new white Canadian seedling grape, called "The Jessica," which is claimed to be the earliest and most profitable white grape yet known. He also offers on very favorable terms all the standard varieties of trees and plants.

His catalogue will be sent to any of our readers who will write mentioning THE PHRENOLOGICAL JOURNAL.

Everything for the Garden.—This is the title under which Messrs. Peter Henderson & Co., of this city, have, for a number of years, issued their annual catalogue of seeds, plants, implements, etc. Their catalogue for 1884 is now ready, and is certainly in many respects, a model. It is beautiful—handsomely printed and illustrated—and it is complete, covering the whole ground; and is useful in being very suggestive to farmers and gardeners, including a description of many new introductions and novelties in the way of grains, vegetables, flowers, fruits, etc.

Horses.—We have just received from the bindery a new, revised, and enlarged edition of Dr. Page's valuable manual on "Horse Hygiene." In addition to the new matter, it contains also full-page portraits of the following famous and thoroughbred horses: Jay-Eye-See, Alcantara, Parole, Eole, Buckeye Bayard, Crown Jewel, Miss Woodford, Joe Bunker, Gildino, Prince George of Wales, Buckingham, and Estes. These are all horses well known, and this set of pictures alone is considered by horsemen and admirers of horses as worth more than the cost of the book. The work has been and is being most cordially received by men who are critics in this kind of literature. Mr. A. Hart-hill, a well-known veterinary surgeon of Louisville, Ky., says: "It is brimful of truth and common-sense, and will do much toward securing the comfort and welfare of the horse."

The Natural Cure, by Dr. Page, continues to attract attention, and the readers find great benefit from the instructions given for the restoration and preservation of health. The following extracts will speak for themselves:

"I have derived more advantage as regards the improvement of my health, from studying this work, (Dr. Page's 'Natural Cure,') than all the health books, or health literature, I have ever read. I am constantly urging my friends to procure the book and read it for themselves."

MRS. A. L. THOMPSON, Brooklyn.

"My friend, Mrs. Thompson, recommended me to read 'The Natural Cure,' and having done so, and been guided by its teachings for the past few months, I have derived the advantages I so much needed. It has made a well woman of me, removing catarrh and partial deafness."

MRS. S. S. GAGE, Teacher in the Adelpia High-School, Brooklyn.

A new and somewhat enlarged edition is now ready, and will be sent to any address on receipt of price \$1.00. Address this office.

Messrs. A. D. Cowan & Co., the proprietors of the American Seed House, 114 Chambers Street, New York, have issued their annual Catalogue for 1884. This contains descriptions of many novelties and specialties of merit in the line of vegetables, flowers, etc. Also a very carefully selected list of standard seeds; and a speciality is made in sending out the best of everything. Our readers will do well to send as above for catalogue.

Gregory's Seed Catalogue.—This name must have become familiar to our readers from its frequent appearance in our advertising columns. Mr. Gregory has become thoroughly identified with the introduction of new and improved varieties of vegetables, and in this way has done a most excellent service to the public. His large and elaborate catalogue will be sent free to any of our readers who will send their address to him as per advertisement.

The Sun.—On another page will be found the advertisement of *The New York Sun*, to which we wish to direct the attention of our readers. Note especially the peculiar computation by which the publisher announces that "during the past year he has furnished 13,000 years of steady reading day and night."

Flowers.—Messrs. Storrs & Harrison, of Painesville, Ohio, have issued a very beautiful catalogue of roses, green-house and bedding plants, seeds, etc. The suggestions given in regard to cultivation are practical, and add to its usefulness. See advertisement on another page.

Not Too Late.—It is not too late to subscribe for **THE PHRENOLOGICAL JOURNAL** for 1884, as we can still furnish back Numbers to the first of the volume. Nor is it too late to canvass for subscribers. While the first of the year is in some respects the best time, our readers and agent-friends should remember that the spring months also furnish advantages. People feel that the pinch of winter is over, and usually money circulates more freely. Our premium offers hold good, and agents will, we trust, continue to work.

Agents Wanted.—We desire to secure the services of experienced agents and enterprising people who are ready to take advantage of an opportunity of making money, to introduce our publications; we are offering favorable and special terms on our new, popular, and salable books. Circulars giving full particulars will be sent on application.

RATES FOR ADVERTISING.

One Full Page.....	\$75.00
One Half Page.....	40.00
Less than Half Page, .50 cts. a line, agate measure	
Second or Third Page of Cover, or First and	
Last Page of Inset.....	\$150.00
Last Inside Page.....	150.00
Fourth Page of Cover.....	Special Rates.
Business Cards.....	75 cts. a line.
Business (Reading Matter).....	\$1.00 a line.

Advertisements must be sent in by the first of the month, to be in time for the month following. No extra charge for inserting cuts. No objectionable advertisements accepted at any price.

BUSINESS CARDS.

The Hammam, a Family Hotel, with Turkish Baths, 81 and 83 Columbia Heights, Brooklyn, N. Y. Three minutes' walk from Fulton Ferry.

Hygienic and Turkish Bath Institute and HOTEL, 13 & 15 Lalght St., New York. M. L. Holbrook, M.D., Proprietor. Circular free.

Healds' Hygeian Home, Wilmington, Delaware. See advertisement. Send for circular. **POSEY** and **MARY E. HEALD, Physicians.**

Kilbourn Hygienic Institute. Quiet Home and Skillful Treatment. Kilbourn City, Wis. Drs. McELROY. Send for circular.

Invalids' Home. A Manual Labor Hygienic Institute. G. V. GIFFORD, M.D., Pro'r, Kakoma, Ind.

The New York Medical College and HOSPITAL FOR WOMEN, and Homeopathic Dispensary for Women and Children. 213 West 54th Street, New York.

Agents Wanted to sell our "GOOD BOOKS FOR ALL." Special terms given. Now is the time for agents to work. Send for Premium List. Address FOWLER & WELLS, 753 Broadway, New York.

Printer and Stereotyper.—EDWARD O. JENKINS, Steam Book and Job Printer, and Stereotyper, No. 80 North William Street, New York

Annie Smith, M.D., 154 E. 49th St., City.

C. F. WELLS, NELSON SIZER, H. S. DRAYTON, ALBERT TURNER,
President. Vice-President. Secretary. Treas. and Bus. Manager.

FOWLER & WELLS CO.

On February 29, 1884, the FOWLER & WELLS CO. was incorporated under the laws of the State of New York as a Joint Stock Company, for the prosecution of the business heretofore carried on by the firm of FOWLER & WELLS.

The change of name involves no change in the nature and object of the business, or in its general management. All remittances should be made payable to the order of the

FOWLER & WELLS CO.

The Subscription Price of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH is \$2.00 a year, payable in advance, or \$2.25 when premiums offered are sent to subscribers.

Money, when sent by mail, should be in the form of Money Orders, Postal Notes, Drafts on New York, or Registered Letters. All Postmasters are required to Register letters whenever requested to do so.

Silver or other coin should not be sent by mail, as it is almost sure to wear a hole in the envelope and be lost.

Postage-Stamps will be received for fractional parts of a dollar. These should never be stuck to the letters, and should always be sent in sheets; that is, not torn apart.

Change of post-office address can be made at any time by giving the old as well as the new address, but not without this information.

Letters of Inquiry requesting an answer should inclose stamp for return postage, and be sure and give name and full address every time you write.

All Letters should be addressed to Fowler & Wells Co., and not to any person connected with the office. In this way only can prompt and careful attention be secured.

Any Book, Periodical, Chart, etc., may be ordered from this office at Publishers' prices.

Agents Wanted for the PHRENOLOGICAL JOURNAL and our Book Publications, to whom liberal terms will be given.

Our Premium List, giving complete descriptions of the Premiums offered to subscribers, sent on application.

Our Descriptive Catalogues or our New List of "Books for Women" will be sent to any address on receipt of stamp for postage.

FOWLER & WELLS CO., Publishers,
753 Broadway, New York.

The Fowler & Wells Co. has been incorporated under the laws of the State of New York as a joint stock company, for the prosecution of the business heretofore carried on under the firm name of Fowler & Wells. This publishing house was established by the Fowlers, the well-known phrenologists, in 1835, and since the death of her husband, which occurred in 1875, it has been conducted by Mrs. Charlotte Fowler Wells, the widow of Mr. Samuel R. Wells, who was at the time of his death the proprietor of the business. Mrs. Wells is a sister of the Fowlers, and has been actively connected with the business since the office was first opened in New York, and makes the present change to relieve herself from care, and to insure the continuance of the business in its present form.

At the election of officers Mrs. C. F. Wells was elected President. Mr. Nelson Sizer, who has been connected with the office as examiner for thirty years or more, was elected Vice-President, and has charge of the professional department. Mr. H. S. Drayton, who has been the editor of the PHRENOLOGICAL JOURNAL for many years, was elected Secretary, and continues in the same position as Editor; and Mr. Albert Turner, who has been connected with the house for twenty years, and is well and favorably known to the Trade, was elected Treasurer of the Company and Business Manager, and there will be no change in the nature or management of the business, which is continued at 753 Broadway, New York.

"Horses."—The new illustrated edition of our manual of "Horse Hygiene" is being received very enthusiastically by the people, and is making the book even more popular than ever. Dr. Felix Oswald, who is well known for his practical ideas on health subjects, says: "The book, 'Horses: their Feed and their Feet,' received. The pictures are a great success, though in its original form the work was the best that has ever been published on the subject. Nearly all the V. S. Literature—that of the *N. Y. Journal of Veterinary Science* not excepted—is like *matéria medica* in general, a figaro of arbitrary, inconsistent nostrum mongery." Live agents who wish something to turn into money quickly should try this. It will sell wherever owners of horses are found, and that is everywhere. We make special rates, and send our confidential terms to any address on application.

For Mothers and Daughters.—It is very seldom a work is published that receives so universal praise from the press as has been given to Dr. Cook's new work. It is a very handsome volume, and will be sent by mail, post-paid, to any address, on receipt of price, \$1.50. We print below extracts from the many

NOTICES OF THE PRESS.

"Mrs. E. G. Cook, M.D., an old resident of Buffalo, has just published a manual of hygiene for 'Woman and the Household,' entitled, 'For Mothers and Daughters,' for which she asks us to bespeak the favor of all her old friends here, as well as of all thinking people who believe that whatever brings health and happiness to women will bring joy to the household. Mrs. Cook writes: 'This book is the outgrowth of the experience of over a quarter of a century, and the need I have felt for women to know themselves physiologically.' 'I should never have found time to have written it had my health continued in the West. I was obliged to leave Chicago in June, and while trying to get well again I have been able to complete it. I am still hoping to write an additional volume especially for the treatment of disease in its incipient stages.' 'One of the best signs of a purer society is the increasing attention given to the laws of health. People get sick and ask God for resignation, when they ought to pray to be forgiven for being sick,' says Mrs. Cook, and in this sentiment she and Mrs. Diaz meet on common ground, and the belief that pain, disease, premature decay and death come of ignorance or violation of nature's laws has given Mrs. Cook nerve and courage to work for the physical education and regeneration of woman. The book is full of helpful suggestions which are not confined to the care of the physical nature, the bone, muscles, brain, and skin, but reach out to the wider field of woman's duties, children's rights, and some of the evils of the present system of fashionable education. A part of what she says on the subject of industrial and cooking schools has a local interest just now, and we quote:

"There is one branch too much neglected by the young women of the present day. I refer to the mother of arts and sciences, good cooking. The importance of scientific cooking can not be overestimated. Persons without brains can not learn the art. Intellectual labor is as dependent on good and healthful food as our clothing is upon the fabric of which it is made. . . . If the worry and care which housekeepers suffer on account of ignorant, wasteful, and slovenly help could be known, it would arouse the community to make adequate provision to remedy it. . . . It is quite probable that some of the children now upon the stage may be induced to celebrate another centennial by understanding the science of cooking in its real adaptation to the needs of the system. . . . There are many women at this moment sending a wailing cry to heaven for health and strength who could have it by discharging half their help and engaging for two or three hours a day in real, old-fashioned housework. What women need is a knowledge of themselves and of their own power to execute plans; to invent and carry to completion devices to aid all manner of domestic machinery; to discipline all their powers into a state of readiness for the every-day affairs of life. . . . Men as a rule continue to grow all their lives; while the monotony of woman's life, unless she is on the alert for wisdom and improves all her resources, causes her to settle into humdrum and commonplace."

"Mrs. Cook's book should find a generous audience in Buffalo, and especially at this time, when so many good women are on the alert to find the best way."—*Buffalo Courier*.

"From a physiological and hygienic stand-point it is unequalled as a family book, being eminently practical, and leading to a knowledge of the laws of health and its restoration in cases of ordinary derangement. One chapter upon uterine displacements is alone invaluable as a guide for delicate womanhood, and another addressed to working-women is highly instructive, and offers many useful suggestions to a class which often suffers from neglect, ignorance, or improvidence; and as nearly all American women are working-women in some capacity, there are hints about dress that would be profitable to any one who depends in the least particular upon her own exertions. For young mothers

and girls attaining womanhood, this book is a boon far exceeding the paltry price of an ordinary volume. Years of suffering might be saved by a due knowledge of physiology and hygiene, more than is taught in the common-school text-book."—*Delaware Co. Reformer*.

"The information which this book affords is precisely what every woman ought to have, and it has seldom been offered in such a compact and convenient form."—*National Tribune* (Washington, D. C.)

"The author of this work has a wide acquaintance in this city, having for many years practiced her profession here. She has a great deal of vital importance to say to womankind."—*Chicago Evening Journal*.

"Prepared by a woman who has herself received a medical training, it contains for mothers instruction and warning that should be carefully considered. Attention to its teachings may save from untold suffering and even premature death."—*Presbyterian Banner*.

"A book replete with common-sense and science made familiar, for the instruction especially of young women. It deals with the structure of their bodies, the importance of physical culture and habits in consonance with the laws of health; discusses dress, food, and education, and dwells with delicate but necessary exactness on the subjects which are hypocritically banished from popular education, but should be taught in all purity and reverence in every public school."—*Syracuse Standard*.

"Dr. Cook starts out with the truth, that God did not design we should suffer if we obey His laws; and the chief cause of all our sorrow is ignorance, and so puts her shoulder to the wheel to dispel ignorance and diminish suffering. There is no doubt but it is the true province of the physician to prevent disease from wasting the lives and destroying the peace of the human family."—*The Alpha* (Washington, D. C.)

"A book covering wide ground, discussing ventilation, the importance of physical culture, the use of liquors and tobacco, general and special hygiene, maternity, the treatment of insane women, the rights of children, duties of women, care of infants, etc."—*Woman's Herald* (Boston).

"The importance of physical culture for women, with especial reference to their duties in the household and the raising and care of children, are prominently treated in this book; there is a chapter on bread and butter, with analysis of processes of digestion; hygiene and ventilation are discussed, and the rights and education of children, etc."—*Scientific American*.

"Care of the health is a religious duty; but no one can duly attend to this important obligation without a degree of knowledge of the functions of the body, and the laws of health. For women much valuable knowledge of this kind is conveyed in the pages of 'For Mothers and Daughters.'"—*Morning Star*.

"The purpose of the author is to advise adult women, married and unmarried, in the duties incumbent upon them, and to this end it is sought to give them an intelligent idea of the functions of the body and its organs. Some work of this kind is indispensable, and this one seems perfectly suited to the purpose for which it was prepared."—*Indianapolis Journal*.

"There are few women who would not be benefited by this book, which treats in a plain, practical, sensible, and yet delicate way, of matters of the gravest moment."—*National Baptist*.

"The topics on which this book treats are such as should be known to every woman in the land. It may be conceded that the more of this kind of literature there is circulated, the better will be the health of the women of the land, and a help to this end is 'For Mothers and Daughters.'"—*Christian Advocate* (Pittsburgh, Pa.)

"Mrs. Cook has evidently the correct idea of the needs of her sex, for she has given a book which is written in a clear and forcible, yet delicate style, and treats upon topics which are of peculiar value to women."—*National Republican* (Washington, D. C.)

"It is a book full of good sense and motherly and sisterly feeling, and is written in a plain and familiar style. The topics it discusses, with the aid of pertinent and plentiful illustrations, are just those which are of the first interest to mothers and daughters, and a clear knowledge of which will save them and their posterity from a world of suffering and wretchedness."—*Massachusetts Ploughman*.

C. F. WELLS, NELSON SIZER, H. S. DRAYTON, ALBERT TURNER,
President. Vice-President. Secretary. Treas. and Bus. Manager.

FOWLER & WELLS CO.

On February 29, 1884, the FOWLER & WELLS CO. was incorporated under the laws of the State of New York as a Joint Stock Company, for the prosecution of the business heretofore carried on by the firm of FOWLER & WELLS.

The change of name involves no change in the nature and object of the business, or in its general management. All remittances should be made payable to the order of the

FOWLER & WELLS CO.

The Subscription Price of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH is \$2.00 a year, payable in advance, or \$2.25 when premiums offered are sent to subscribers.

Money, when sent by mail, should be in the form of Money Orders, Postal Notes, Drafts on New York, or Registered Letters. All Postmasters are required to Register letters whenever requested to do so.

Silver or other coin should not be sent by mail, as it is almost sure to wear a hole in the envelope and be lost.

Postage-Stamps will be received for fractional parts of a dollar. These should never be stuck to the letters, and should always be sent in sheets; that is, not torn apart.

Change of post-office address can be made at any time by giving the old as well as the new address, but not without this information.

Letters of Inquiry requesting an answer should inclose stamp for return postage, and be sure and give name and full address every time you write.

All Letters should be addressed to Fowler & Wells Co., and not to any person connected with the office. In this way only can prompt and careful attention be secured.

Any Book, Periodical, Chart, etc., may be ordered from this office at Publishers' prices.

Agents Wanted for the PHRENOLOGICAL JOURNAL and our Book Publications, to whom liberal terms will be given.

Our Premium List, giving complete descriptions of the Premiums offered to subscribers, sent on application.

Our Descriptive Catalogues or our New List of "Books for Women" will be sent to any address on receipt of stamp for postage.

**FOWLER & WELLS CO., Publishers,
753 Broadway, New York.**

The Fowler & Wells Co. has been incorporated under the laws of the State of New York as a joint stock company, for the prosecution of the business heretofore carried on under the firm name of Fowler & Wells. This publishing house was established by the Fowlers, the well-known phrenologists, in 1835, and since the death of her husband, which occurred in 1875, it has been conducted by Mrs. Charlotte Fowler Wells, the widow of Mr. Samuel R. Wells, who was at the time of his death the proprietor of the business. Mrs. Wells is a sister of the Fowlers, and has been actively connected with the business since the office was first opened in New York, and makes the present change to relieve herself from care, and to insure the continuance of the business in its present form.

At the election of officers Mrs. C. F. Wells was elected President. Mr. Nelson Sizer, who has been connected with the office as examiner for thirty years or more, was elected Vice-President, and has charge of the professional department. Mr. H. S. Drayton, who has been the editor of the PHRENOLOGICAL JOURNAL for many years, was elected Secretary, and continues in the same position as Editor; and Mr. Albert Turner, who has been connected with the house for twenty years, and is well and favorably known to the Trade, was elected Treasurer of the Company and Business Manager, and there will be no change in the nature or management of the business, which is continued at 753 Broadway, New York.

"Health in the Household."—This work is meeting with hearty approval on every side. Dr. L. Oswald, well known for his strong and clearly-expressed opinions on hygienic and medical subjects, says: "Your household book reached me yesterday evening, and I read the first 200 pages before night, and would have read it through if my women folks had not coaxed me to give them a chance at it. It is not only logical and systematic, but the most readable work of the kind ever published; and I predict that it is destined to become a household work in every popular sense of the word." This is certainly strong praise from a competent judge, and in harmony with assurances we have received from others, of the value and importance of the work.

NOTES ON OUR PUBLICATIONS.

HEALTH BOOKS.

That many people suffer from avoidable causes of disease is not doubted, and that many people suffer from sickness brought on from want of a proper knowledge of life and health is certain. During the spring and early summer months, additional attention and care are necessary, in order to preserve our health and strength. The change in the season requires a change in our habits, in our food, etc., and we believe no better investment of money can be made than that spent in purchasing books which will furnish reliable information relating to this subject. We have for years received almost daily evidence that the knowledge gained from our publications on the subject of health and hygiene have been a great benefit to the people. Our works have the advantage of being practical, written for the people rather than the profession, and by writers who have made the subject a life study. In this connection we wish to call special attention to a few of our many works in this department.

The Diseases of Modern Life, by Dr. Richardson, of England, is undoubtedly the best work yet published on the avoidable causes of disease. It covers very fully the practical affairs of life as related to health and longevity. A large volume of upwards of 500 pages. Price, \$1.50.

Health in the Household; OR, HYGIENIC COOKERY. This is undoubtedly one of the most important books issued from our press in many years, and it is unquestionably the best Cook-Book ever published. It is almost the only one of any size or importance which takes into account at all the healthfulness of the dishes described. The only criticisms that it has received, have been from people who preferred to live to eat, rather than to eat to live. Price, \$2.00.

For Mothers and Daughters is a manual of Hygiene for Women and the Household. The author, Dr. Cook, is a lady who has had a wide and varied experience in her practice of over a quarter of a century, and this book is a record of the result of her observation. It should be in the hands of every woman who would prolong her own life and be instrumental in doing good to others. Price, \$1.50.

Health by Exercise. This is the title under which has been published a new and enlarged edition of Dr. Taylor's celebrated work on **THE MOVEMENT CURS.** It gives directions for special exercises, and a summary of the general principles of hygiene that can be found in no other volume. It would enable ladies and all sedentary people to secure systematically the exercise needed for general health. Price, \$1.50.

Massage. Dr. Taylor has also written a new work with this title, giving the principles and practice of remedial treatment by imparted motion, with a description of manual processes. In this we find a consideration of physical conditions; the effects of muscular action on the system, with directions for "massage" of the skin and lower extremities, upper extremities, digestive organs and the head, together with the conditions essential for its successful application. It will prove useful to physicians, and especially to nurses and to all who have in any way the care of the sick and feeble. Price, \$1.00.

The Natural Cure. This is a work relating to the treatment of Consumption, Constipation, Bright's Dis-

case, Neuralgia, Rheumatism, etc., and is attracting attention. Dr. Page writes from a new and original stand-point and in a clear and attractive manner. A new edition has just been published. Price, \$1.00.

How to Feed the Baby, by the same author, is the best work on the hygiene of infancy yet written. It appeals to the common-sense of the people, and for this reason its teachings have been widely adopted and with most beneficial results. It has passed rapidly to the fourth edition and should be circulated by hundreds of thousands. Price, 50 cents in paper, and 75 cents in cloth binding.

Horses, their Feed and their Feet. Very closely allied to the health of the family, is the health of that most useful of all animals, the horse. While the country has been flooded with books on the horse, a very large proportion of them have been written, and in some cases circulated gratuitously, for the purpose of advertising some patent medicine, some spavin cure, or something of the kind, and they have not dealt with the hygiene of the subject. Dr. Page, the author of the above works, is also the author of this. A new edition is now ready, and illustrated with a large number of plates of famous and thoroughbred horses, making it the most attractive book ever published on the subject of horses. Price, 50 cents in paper, and 75 cts. in cloth binding.

For Girls. The fifth edition of this work is nearly exhausted, and the sixth will soon be on the press. It hardly seems necessary for us to refer to the warm words of commendation which this work has received. We would like to send a copy to every mother of a daughter, and to every young lady reader of **THE PHRENOLOGICAL JOURNAL.** If you wish to know something of the book before ordering, send for the "Address to Mothers and Teachers," which will be sent free, or the book will be sent by mail, post-paid, on receipt of price, \$1.00.

How to be Well is a manual of common-sense, practical hygiene. A book for the people, giving directions for the treatment and cure of acute diseases without the use of drugs, with general hints on health. Families who would reduce the amount of pain and suffering, as well as doctors' bills, should have it. Price, \$1.00.

The Hygienic Home Cook-Book. This little work has had a very extended circulation and a new edition has just been published. It is the best brief collection of strictly hygienic recipes published. Price, 25 cents.

The Health Miscellany. This is a series of papers on health topics, compiled and edited from **THE SCIENCE OF HEALTH**, the back numbers of **THE PHRENOLOGICAL JOURNAL** etc. It contains an extended article on the External Senses, Sight, Smell, Hearing, etc., with illustrations. The cause of and cure for backache are given, also the cause and treatment of catarrh. A chapter on Ethnology, and one of the best articles on the care of the teeth ever published. The cause of malarial disease, etc. Many of these papers alone would be worth all that is asked for the pamphlet of nearly a hundred pages. Price, 25 cents.

Dr. Trail's Works on health subjects are too well known to require more than a casual reference. His Encyclopædia has found its way into tens of thousands of families, greatly to their advantage.

Books for Women. As we publish a number of works relating to subjects in which women are especially interested, we have made up a large descriptive catalogue of these, giving extracts from notices of the press, etc., which we would like to send to every lady reader of the JOURNAL. If you will send us the addresses of your friends who are mothers, and who are interested in household affairs, we will be glad to mail this list to them, post-paid.

A Catechism of Phrenology. This work was announced some little time ago, but was unexpectedly delayed. It is now ready and illustrates the principles of Phrenology by means of short conversational questions and answers, thus adapting it alike to the young and the old.

The work was originally published by a member of the Phrenological Society in Edinburgh, and is now revised, enlarged, and illustrated, by Nelson Sizer. There will certainly be no excuse for a want of information on the essential doctrines of Phrenology, since the gist of the subject is here presented so perfectly yet clearly that even children can not fail to take an interest in, and understand it.

Nearly fifty years ago the original book had reached a circulation of 20,000 copies. It contains questions and answers relative to the principles of Phrenology, its discovery and its use, with the division and the classification of the faculties and nearly one hundred illustrations. We have added to the work the definitions of the organs and their Scriptural recognition, prepared by Mr. Sizer and published under the title of "Harmony of Phrenology and the Bible." This is very interesting, showing that each of the several faculties are recognized in the sacred Scriptures. It will be sent by mail, post-paid, on receipt of price, 50 cents, and it is hoped that the readers of the JOURNAL will send for it for their own use and to place it in the hands of their friends.

Book Premiums.—We still continue to offer a choice between the Phrenological Bust, either the large or small size, Richardson's great work on the "Diseases of Modern Life," Sir Charles Bell's "Philosophy and Anatomy of Expression," and Dr. Capen's "Reminiscences of Spurzheim." These are offered to every subscriber whether new or old, whether sent directly or through agents. In all cases 25 cents additional to the subscription price must be included. Persons desiring the bust as well as the book premium will be entitled to it by remitting 50 cents extra, making \$2.75.

Medical Education for Women.—The New York Medical College and Hospital for Women held their commencement exercises at Chickerling Hall on the evening of April 1st. There was a large attendance of the friends of the students, and interesting exercises. The American Medical and Eclectic Institution at St. Louis, Mo., also affords a medical education for women. Particulars can be obtained by addressing the Dean of the Faculty, Dr. G. E. Pitzer, 1110 Chambers St., St. Louis, Mo.

Messrs. Funk & Wagnalls are doing a good service to the public in printing in a cheap form a series of useful books. These should take the place of the sensational trash that is being almost forced on the public. Their advertisement will be found in this Number.

RATES FOR ADVERTISING.

One Full Page	\$75.00
One Half Page	40.00
Less than Half Page .50 cts. a line, agate measure.	
Second or Third Page of Cover, or First and Last Page of Inset	\$150.00
Last Inside Page	150.00
Fourth Page of Cover.....	Special Rates.
Business Cards	75 cts. a line.
Business (Reading Matter).....	\$1.00 a line.

Advertisements must be sent in by the first of the month, to be in time for the month following. No extra charge for inserting cuts. No objectionable advertisements accepted at any price.

BUSINESS CARDS.

The Hammam, a Family Hotel, with Turkish Baths, 81 and 83 Columbia Heights, Brooklyn, N. Y. Three minutes' walk from Fulton Ferry.

Hygienic and Turkish Bath Institute and Hotel, 18 & 15 Laight St., New York. M. L. Holbrook, M.D., Proprietor. Circular free.

Healds' Hygetan Home, Wilmington, Delaware. See advertisement. Send for circular. **PUSKY and MARY H. HEALD, Physicians.**

Kilbourn Hygienic Institute. Quiet Home and Skillful Treatment. Kilbourn City, Wis. **DRS. McELROY.** Send for circular.

Invalids' Home. A Manual Labor Hygienic Institute. **G. V. GIFFORD, M.D., Pro'r, Kakoma, Ind.**

The New York Medical College and Hospital for Women, and Homeopathic Dispensary for Women and Children. 213 West 64th Street, New York.

Agents Wanted to sell our "GOOD BOOKS FOR ALL." Special terms given. Now is the time for agents to work. Send for Premium List. Address **FOWLER & WELLS CO., 753 Broadway, New York.**

Printer and Stereotyper.—**EDWARD O. JENKINS,** Steam Book and Job Printer, and Stereotyper, No 20 North William Street, New York

Annie Smith, M.D., 154 E. 49th St., City.

ADVERTISEMENTS.

FOOD BETTER THAN MEDICINE

We provide vital, blood-making foods for all diseases. Sufferers from Dyspepsia, Constipation, Nervous Prostration, and Diabetes, should send for our free pamphlets.

HEALTH FOOD CO.,

74 Fourth Ave., New York.

Brooklyn office—9 Clinton Street.
Boston office—63 Commercial Street.

PHYSIOGNOMY. LAVATER'S ESSAYS.

Translated from the German, by Thomas Holcroft; also one hundred Physiognomical rules, and a memoir of the author. Seventeenth edition. Illustrated with upwards of 400 profiles. We are now prepared to supply the English edition of this work, and will send by mail, post-paid, on receipt of price, \$4.00.

FOWLER & WELLS Co., Publishers,
753 Broadway, New York.

TO SEEK TO RECOVER HEALTH

by doing those things which destroy health, is rapidly falling into disrepute. Intelligent people hesitate longer to poison themselves because they are sick. Hygienic treatment is, therefore, sought and commended as never before.

WHAT IS HYGIENIC TREATMENT?

It is not baths, nor diet; it is not movements, massage, nor electricity. Though it employs all these, it does so on principles very different from those commonly understood. Its reputation has been injured by restricting it to simple bathing and diet, or by using these with movements, massage, and electricity on *allopathic principles and in allopathic doses*. The invalid world should learn that there is no curative virtue in anything outside of the organism; that it is vitality that cures, not baths; and that the certainty and rapidity of cure depend upon the amount of vitality. *To recuperate the patient's wasted energies is, therefore, the highest medical wisdom.* When baths, movements, massage, electricity, diet, with pure air and water, are used with this first object in view, success to the patient will be secured, and not before. Accumulation of vital power is the distinctive feature of a true hygiene. For ten years the physicians of

Drs. Walter's Mountain Park, Wernersville, Berks Co., Pa.

have applied these principles with a success which has not been equalled on this continent. It was the Drs. Walter who first added massage, movements, and electricity to the regular hygienic treatment at the regular prices; and they still secure to the patient a larger range of appliances, upon correct principles, and at prices within the reach of all than are found anywhere in the country.

DO YOU CONTEMPLATE VISITING A HEALTH INSTITUTION?

Consider carefully: first, the location; second, the range of appliances; and third, the cost of treatment.

The Drs. Walter, it can not be denied, possess the finest location in the country. For air, water, scenery, climate we might almost say ease of access, we are beyond competition and beyond criticism.

Our appliances include the varied forms of baths, massage, the movement-cure, electricity, a hygienic dietary, with the finest fruits and vegetables from our own grounds. We have lately added two of Taylor's Manipulators, the Health-Lift, and a magnificent Gymnasium with complete apparatus.

THE COST OF TREATMENT.

In this respect we challenge competition. The movement-cure, massage, and electricity are expensive but valuable. For movements alone the regular price in New York is \$50.00 per month without board; for massage, \$2.00 each treatment; for electricity, 50 cents to \$1.00; all of which, including fire, lights, board, medical care and attention, are furnished at Drs. Walter's Mountain Park, at from \$8.00 to \$15.00 per week. The reader may inquire, why so low prices? Our answer is, that pioneers have always had to labor and to wait, and that our facilities for doing work at the lowest possible prices are superior to those of any place we know of.

We shall be pleased to correspond with any parties who may be interested in our work, or who may seek our services. All letters of inquiry should be addressed, enclosing stamp, to Robert Walter, M.D., Wernersville, Berks Co., Pa.

Dr. F. Wilson Hurd's Highland Hygeian Home, THE WESLEY WATER-CURE, AT DELAWARE WATER GAP.

Address EXPERIMENT MILLS P. O., Pa.

Situated in a most beautiful and healthful locality, no malaria, consumption rare. We receive cases every month in the year. "RECTAL DISEASES" a speciality. Treatment very successful by Dr. Brinkerhoff's new method, with little or no pain or delay from business. No cutting or excision."

WANTED—at Our Healthful Home, a man to work for his board and treatment.
Address **A. SMITH, M.D.,**
Our Healthful Home, Reading, Pa.

80 Treatments, \$15. Ex. Fee and Preg. 1 year.
\$5. Board, \$5 per week, at Riverside Sanitarium, Hamilton, Ill. E-tab. 13 years. Circulars free.
E. B. RINGLAND, M.D., Proprietor.

HYGIENIC BOARDING

near Fairville Station, on the Baltimore Central Railroad, twenty-eight miles from Philadelphia, at an ELEVATED, HEALTHY, AND WELL-SHADED HOME.

TERMS MODERATE.

Address **HANNA W. SHARPLESS,**
Fairville P. O., Chester Co., Penn.

FOR SALE OR RENT. One of the most Popular and Successful Sanitariums in the United States.
Address Drs. P. & M. H. HEALD, Wilmington, Del.

BOOKS FOR WOMEN.

For Mothers and Daughters, \$1.50.

A practical Manual of Hygiene for Women.

For Girls: A Special Physiology, \$1.00.

It is important that every Girl should read it.

Health in the Household, \$2.00.

The best work on Healthful Preparation of Food.

H. Home Cook Book, 25 cts.; cloth, 50 cts.

A Book of Hygienic Recipes for all Homes.

A large catalogue of "Books for Women" free.

Send address on postal to

Fowler & Wells Co., 753 Broadway, N. Y.

Sunny Side Mountain Health Resort.

Open all the year for Patients and Boarders.

ROBERT P. PRESTON, M.D.,
Wernersville, near Reading, Pa.

C. F. WELLS,
President.

NELSON SIZER,
Vice-President.

H. S. DRAYTON,
Secretary.

ALBERT TURNER,
Treas. and Bus. Manager.

FOWLER & WELLS CO.

On February 29, 1884, the FOWLER & WELLS CO. was incorporated under the laws of the State of New York as a Joint Stock Company, for the prosecution of the business heretofore carried on by the firm of FOWLER & WELLS.

The change of name involves no change in the nature and object of the business, or in its general management. All remittances should be made payable to the order of the

FOWLER & WELLS CO.

The Subscription Price of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH is \$2.00 a year, payable in advance, or \$2.25 when premiums offered are sent to subscribers.

Money, when sent by mail, should be in the form of Money Orders, Postal Notes, Drafts on New York, or Registered Letters. All Postmasters are required to Register letters whenever requested to do so.

Silver or other coin should not be sent by mail, as it is almost sure to wear a hole in the envelope and be lost.

Postage-Stamps will be received for fractional parts of a dollar. These should never be stuck to the letters, and should always be sent in sheets; that is, not torn apart.

Change of post-office address can be made at any time by giving the old as well as the new address, but not without this information.

Letters of Inquiry requesting an answer should inclose stamp for return postage, and be sure and give name and full address every time you write.

All Letters should be addressed to Fowler & Wells Co., and not to any person connected with the office. In this way only can prompt and careful attention be secured.

Any Book, Periodical, Chart, etc., may be ordered from this office at Publishers' prices.

Agents Wanted for the PHRENOLOGICAL JOURNAL and our Book Publications, to whom liberal terms will be given.

Our Premium List, giving complete descriptions of the Premiums offered to subscribers, sent on application.

Our Descriptive Catalogues or our New List of "Books for Women" will be sent to any address on receipt of stamp for postage.

FOWLER & WELLS CO., Publishers,
753 Broadway, New York.

Old Manuscripts.—The Editor finds it necessary to clear his pigeon-holes of a large accumulation of manuscripts that are not appropriate to the columns of this magazine, on account of their length or because their topics are the same as those of contributions that are awaiting their turn, having been accepted for publication. They would have been returned to their writers had the cost of mailing been inclosed when sent to this office, in accordance with the old rule published at the head of our correspondents' department. These manuscripts generally possess qualities of value, and for that reason they have been preserved as a matter of consideration for the writers. The Editor will wait a reasonable time—say 60 days—for responses to this notice before disposing of the accumulation through that most effectual of methods, the waste-basket. Worthy of special mention are these: The Diaphragm and Mind; Degeneracy in Women, by A. C. B.; Mabel King, a story in eleven chapters; Mental Science and Religion, J. R. L.; How the Soul may attain to Divine Hearing and Vision, Hickson, J. E. I.; Two Different Views of Life, E. N.; A New Departure in the Food Question, A. C.; Sunday-schools—A Sermon; Conscience in Psychology and Morals, an elaborate essay; My Inquisitive Friend—Goldenrod; Evils of Intemperance, J. S.; Winning his Way, E. M.; Thomas Campbell, W. W. S.; The Nation's Wards, D. P.; The Model Wife, R. R. E.; What is Intelligence? T. G. N.; A Vision of the White House, J. A. K.; Trees and Flowers, C. J. A.; Thomas Easton, The New Aspect of Poetry, H. P. S.; The Domain of Science, Judge C.; Mental Electricity, A. J. J.; Amnesty in National Life, G. M. J.; Maple Corner, A. A. P.

Carelessness of Letter-Writers.—*The Agents' Herald* says: "Out of the 4,440,832 pieces of mail matter which were sent to the Dead Letter office last year, more than 34,000 contained checks, money, etc., to the amount of about \$1,030,000. These letters, of course, were those which, for want of a proper address, failed to reach those for whom they were intended. But many letters which reach their destination fail of their effect through equal carelessness on the part of their writers. The publisher of a Boston magazine states his experience thus:

"Letters are received requesting change or continuance, but dated nowhere, or without signature; copies of our magazine are returned with nothing to show whence they come; envelopes, directed and stamped, are received with no letters inside. Occasionally money is received with nothing to indicate where it comes from, or from whom, and not infrequently the post-office stamp is so indistinct that it can not be read. Let all then be careful, for these mistakes are not all the result of ignorance, but of carelessness. Remember that the most important part of a business letter is the address and signature of the writer."

In Trouble Still.—In the March number of the *JOURNAL* we published the following: "Where is the trouble?—We received from James J. Brown, of New Haven, Conn., a letter containing 40 cts. for 'Mind in the Face.' No street or P. O. box address was given, and the book was mailed to the New Haven P. O. Some time after we received a complaint from Mr. Brown that the book had not been received. Soon after that a notice from the postmaster came, informing us that the book had not been called for, and requesting stamps for return postage, which we forwarded and in due time received the book. Another complaint came from Mr. Brown, which we answered, and this letter is returned to us uncalled for. Now in a case like this, what can be done? We neither wish to have Mr. Brown a loser by the transaction nor do we wish to have our reputation injured by the fact that he has not received the book sent for. But have we not done all that we can do, and is the fault not his? In all cities it is safe and proper that the street and number be given; it will be likely to save much trouble and annoyance."

After the above was published, we received from one of our subscribers a letter under date of March 12th, showing what he thinks about it. He says: "I noticed in the March number of *THE PHRENOLOGICAL JOURNAL*, where James J. Brown, of New Haven, Conn., sent to you for a book, without giving his full address, and you sent the book to the New Haven Post-office. You then received a complaint from Mr. Brown that he had not received the book, and in a short time the postmaster at New Haven requested you to forward stamps for return postage, which you forwarded and received the book. I think Mr. Brown, or any one else that sends for books and don't give their full address ought to be the losers, for you have done all that you can do. I don't think that will injure your reputation or have any influence. Yours respectfully, G. A. C."

The following letter of March 10th was received from Mr. Brown, who evidently had not seen the notice in the March number: "It is now more than three months since I wrote you for the book 'Mind in the Face,' inclosing postal order for the same, which you acknowledged to have received. Although I have written you several times in regard to the matter, I have received no reply; had I any reason to believe that you are simply some sawdust concern, doing business under the motto, 'Receive the money and then mum is the word,' I should not expect to hear from you; but presuming as I do, that you are some legitimate firm, and not any bogus concern, your way of doing business is very strange to me. During several years past I have received books from the 'Harper Brothers' occasionally, and have never had the least trouble or delay in any way. If you can not fill the order, why not return the money? In the course of a few days, I shall know through a communication to a New York paper, stating the case, whether you are a firm doing an honest business or not. I am aware that some years ago, there was a firm of your name doing business somewhere on Broadway, but whether you are this same firm, or some bogus concern using their name to deceive the public I have no means of knowing at present; but I will know in a short time. I should like to receive the book if you have it; if not,

I should like to have my money returned." Any reply to the following address will be handed me.

"Yours truly, JAMES J. BROWN,
"New Haven, Conn."

Our reply to this letter was after a few days returned to us from the New Haven Post-office uncalled for. We then wrote as follows to the postmaster of New Haven, inclosing the above letter from Mr. Brown:

"The inclosed slip, cut from a recent number of the *JOURNAL*, and the letter will explain itself. Our answer to this letter of Mr. Brown's is returned to us from your office. Can you give us any suggestion in the matter? Please return Mr. Brown's letter with your reply, and oblige, Very truly yours,

"FOWLER & WELLS Co."

And received his reply as follows: "We are unable to locate Mr. James J. Brown in this city, and do not believe he is a permanent resident, neither has he ever complained of failure to receive mail at this office.

"Very respectfully, N. D. SPORR, Postmaster."

Now, if any of our readers in New Haven know Mr. James J. Brown, will they not call his attention to the matter? We are suffering under a false charge. Mr. Brown will of course tell his friends that we are frauds, advise them to send no money to us; perhaps write to the newspapers in regard to his experience in dealing with this house; and what can we do about it? One object that we have in this matter, is to find Mr. Brown, if possible, and another is, to offer a suggestion to each of our readers, that they will be careful and give full and definite address each and every time a letter is written.

Readings and Impersonations.—

Among the most popular entertainments are those given by competent elocutionists; and in this connection we wish to refer to Miss Nettie Taylor, a young lady of great promise in this direction. In speaking of her *The New York Herald* says: "Miss Taylor is a young elocutionist whose natural gifts are of generous proportions, and whose artistic methods are well chosen, refined, and effective. She is destined evidently to attain a high place among lady elocutionists."

Rev. Samuel D. Burchard, President of Rutgers Female College of this city, says: "She seems to have the power of touching every sensibility of our nature, and of perfectly personating any character she chooses to read. In my judgment she has few equals as an elocutionist."

We would recommend our readers to embrace any opportunity offered for hearing her, and to those in need of such services as she renders, can address her at 105 Clarke Street, Brooklyn, N. Y.

The Face as Indicative of Character.—

This is the title of a pamphlet edited by Alfred T. Story, the editor of the *Phrenological Magazine*, published by Mr. L. N. Fowler in London. It contains the matter published in the pamphlets we have already advertised, called the "Chapter on Noses," "Mouth and Lips," and "Eyes and Eyebrows," including also "The Temperaments," "The Facial Poles," "The Chin," "The Cheek," "The Forehead," "General Principles," and "Conclusions." Illustrated with a number of fine and appropriate engravings. It contains nearly 100 pages, and over 100 illustrations. We will send it by mail, post-paid, on receipt of 60 cents.

Horses.—Our work on horses is so filled with new and practical ideas on the care of this noble animal, that it is attracting the attention of all thinking men who are interested in the subject. We print below extracts from a few letters received.

Col. F. B. Curtis, writing from Kirby Homestead, Charlton, N. Y., April 18, 1884, says: "Messrs. Fowler & Wells—I want to add my testimony to the soundness of the views contained in the manual of 'Horses: their Feed and their Feet.' Food is wasted by the millions in this country by excessive feeding, and animals are the worse for it. I have found this to be true, not only with horses, but cattle and other animals. Too much buttress is the bane of blacksmiths. Every person who owns a horse ought to read this useful work, and practice its teachings. I like doctors whose success is found in preventives."

Mr. Milton George, the editor of the *Western Rural*, one of the best agricultural papers in the country, in a personal letter says: "We like your book for the very reason that it comes nearer to common-sense principles in the treatment of animals, than the most of veterinary works."

Mr. M. Gardiner, of Carthage, says: "The work contains a great many reasonable ideas and practical hints about the care and treatment of the horse, and I shall do what I can in recommending the work to others."

Joseph F. Johnson, East Haddam, Ct., says: "The book you sent me on the treatment of horses I consider a valuable work, with some new and very reasonable ideas which I never before have seen published. I wish it may reach the hands of every horseman, that he may study and consult his own interest, as well as the comforts of the horse."

E. O. P. Andrews, Eden, Me., says: "Your book on horses is perfectly satisfactory, and every farmer or person who keeps a horse ought to have it. I have adopted the two-meal plan with my horses, and it works to a dot."

If this work was to be placed in the hands of all owners of horses, it would add many thousands of dollars to their working and their commercial value.

An Address to Mothers.—We have published in circular form the address to mothers and teachers contained in Mrs. Shepherd's book "For Girls." This gives the author's reason for writing the book, and is a plea to mothers in behalf of increased knowledge for their girls. This, together with letters from representative people, will be sent free to any address, on application, and to ladies who will distribute them among those who should be interested, we shall be glad to send one or two dozen copies. It is confidently believed a circular of this kind would do much good by calling attention to an important subject.

A New Cast.—We have added to our collection a cast of the head of Charles Rugg, the murderer of the Maybees, of Long Island, who is at this time under sentence of death. This cast is on free exhibition, and is quite an important addition to our murderers' row. As most of our readers know, we have in our cabinet hundreds of casts taken from the heads of men noted and notorious in every walk of life, from the highest to the lowest. It is a unique collection, and the only one of the kind in the world, and attracts the attention of many visitors. Our readers will be specially interested in calling and spending an hour here.

McComber's Boots and Shoes.—

On another page in this Number will be found a very striking advertisement of Mr. Joel McComber, of 122 East 10th Street, New York. Too much importance can not be attached to the matter of suitable dress for our sect, and we would commend to our readers the statements made by Mr. McComber. The illustrations used in the advertisement are from one of his pamphlets, containing a dozen or more pages and more than 20 striking illustrations, showing the various styles of covering for the feet which he makes, the difference between his and common shoes, and the effects from wearing each kind. This pamphlet will be sent free to any of our readers who will send to the above address. We have given McComber's system a thorough trial, and are fully satisfied that he does not claim too much for it. After years of experience in making his patent boots and shoes, and patent lasts to order, he has now, to meet the wants of the people, completed arrangements for the carrying of a stock of ready-made goods, covering all the various sizes by which he is enabled to fit all, except very badly distorted cases, from his stock, and, of course, at more moderate prices than when made to order exclusively. A shoe that fits well, other things being equal, will far outwear one that does not fit, and therefore it is a matter of economy, as well as of health and comfort, to wear these goods. Let each of our readers send address on a postal card for his new pamphlet, and to those who are interested to know still more about this system, he will send his large pamphlet, containing over 100 pages. When writing always mention THE PHRENOLOGICAL JOURNAL.

Evaporating Fruits.—The processes of preserving fruit by evaporation are now attracting very wide-spread attention, and deservedly so, as it is a great improvement on any means used before this. We have received from the "American Manufacturing Co.," of Waynesborough, Pa., their large pamphlet relating to this subject. It contains valuable information, as well as a description of the evaporators manufactured by this concern. It will be sent free to any of our readers who are interested in the subject.

"The City Item" is the name of a paper published and edited by J. Marlon Pollok, at 57 Cedar Street, in this city, devoted to society, literature, fashion, music, with biographical sketches and portraits. It is very handsomely printed on fine tinted paper and will be found specially interesting in the department to which it is devoted.

Postmaster Wells.—Pres. Arthur has appointed Mr. Rodney D. Wells as postmaster of St. Louis, Mo. This is a most important position, and Mr. Wells will bring to it his extended knowledge of business affairs with, what we are sure will be, good results, and in the interest of the service.

An Excursion Party.—Dr. D. C. Moore, of San Francisco, Cal., is spending the spring months at Salem, Ohio, and is organizing an excursion party to return with him the first of June. This will be a party for health, pleasure, and home-seekers, and the Doctor is endeavoring to induce a sufficient number of people to join him in establishing a "Health Colony" at some favorable point. Those interested can secure additional and full information by addressing D. C. Moore, M.D., Salem, Ohio.

A Merited Rebuke was uttered lately against a paper published by Dr. A. T. Cuzner, in the *Scientific American Supplement*, on the subject of *Cereal Flours*. The rebuke came from so high a source as Prof. Albert R. Leeds, Ph.D., Professor of Chemistry in the Stevens Institute of Technology, and was delivered before the American Chemical Society. Dr. Cuzner stated in his article that he had found a way of examining flour, by which all bread-makers could determine the value of their loaves. He illustrated his article with pictures which he said represented various flours as seen under the microscope. Prof. Leeds finds that no results of value can be obtained by employing Cuzner's methods, and furthermore testifies that Cuzner's pictures, which Cuzner asserted were made from microscopic views of *flours*, were really copies of pictures of thin sections of the wheat berry, and not taken from flour at all; and further, that these pictures were taken bodily from Prof. Horsford's Report on Vienna Bread, published by the U. S. Government in 1875. Cuzner's article was evidently written in the interest of the Franklin Mills, as the burden of its song was the superiority of the flour of that concern, over the flour of the Health Food Company, of 74 Fourth Avenue, New York. Prof. Leeds' testimony, however, disposes of that fallacy among the rest, and asserts the greater value of the Health Food Company's product. His paper has been reprinted in pamphlet form, from the *Journal of the American Chemical Society*, which we can supply at 10 cents a copy.

Busts for Schools and Libraries.—

We are prepared to furnish for the use of schools, public and private libraries, suitable busts of scientific, educational, and public men. Our list includes besides the ordinary ancient subjects, Horace Mann, Audubon, Prof. Silliman, Prof. Huxley, Cuvier, Alexander Hamilton, W. H. Seward, Thos. A. Edison, Washington, Lincoln, Chase, Webster, etc. The prices will be sent on application.

To Teachers.—

We wish to call the attention of teachers desiring employment during the summer vacation, to the opportunity we offer for doing good and being paid for it, by the sale of our useful publications. Our terms, giving full particulars, will be sent on application.

Everybody's Paint Book.—

This is the title of a new work on painting, just published by M. T. Richardson. It gives instruction for out-door and in-door painting, designed for the special use of those who wish to do their own work. It is well illustrated, and contains a great deal of miscellaneous information that will prove valuable. Price \$1.00.

Orange Judd.—

The veteran editor of the *American Agriculturist* has transferred his field of labor, and in a certain sense his allegiance, by becoming the editor and business manager of the *Prairie Farmer*, published in Chicago. Mr. Judd will give new life to this paper, and his thirty years of editorial experience will find a free scope.

Phrenological Examinations.—

In reply to inquiries we would say, our office is open daily during business hours for examinations, when competent persons are always in attendance. Those who can not make it convenient to call personally, are requested to send for circular called "Mirror of the Mind," which gives instructions for the taking of pictures for examination,—a very satisfactory method.

A New Volume.—This Number of the *JOURNAL* closes the 78th volume of the *PHRENOLOGICAL JOURNAL*, and volume 79 will commence with the July Number; therefore this is a favorable time for subscribing. Subscriptions received now will date from July, unless we receive special instructions to the contrary. We can still supply back Numbers from the first of January, if so desired.

RATES FOR ADVERTISING.

One Full Page.....	\$75.00
One Half Page.....	40.00
Less than Half Page.....	.50 cts. a line, agate measure.
Second or Third Page of Cover, or First and Last Page of Inset.....	\$150.00
Last Inside Page.....	150.00
Fourth Page of Cover.....	Special Rates.
Business Cards.....	.75 cts. a line.
Business (Reading Matter).....	\$1.00 a line.

Advertisements must be sent in by the first of the month, to be in time for the month following. No extra charge for inserting cuts. No objectionable advertisements accepted at any price.

BUSINESS CARDS.

The Hammam, a Family Hotel, with Turkish Baths, 81 and 83 Columbia Heights, Brooklyn, N. Y. Three minutes' walk from Fulton Ferry.

Hygienic and Turkish Bath Institute and Hotel, 13 & 15 Lighthouse St., New York. M. L. Holbrook, M.D., Proprietor. Circular free.

Healds' Hygeian Home, Wilmington, Delaware. See advertisement. Send for circular. **PURKIN** and **MARY H. HEALD**, Physicians.

Kilbourn Hygienic Institute. Quiet Home and Skillful Treatment. Kilbourn City, Wis. **DR. McELROY.** Send for circular.

Invalids' Home. A Manual Labor Hygienic Institute. G. V. GIFFORD, M.D., Prop'r. Kokoma, Ind.

The New York Medical College and Hospital for Women, and Homeopathic Dispensary for Women and Children. 213 West 64th Street, New York.

Agents Wanted to sell our "GOOD BOOKS FOR ALL." Special terms given. Now is the time for agents to work. Send for Premium List. Address FOWLER & WELLS CO., 753 Broadway, New York.

Printing and Stereotyping.—EDWARD O. JENKINS' SONS, Book Printing a Specialty. Estimates promptly furnished. 20 North William St., N. Y.

Annie Smith, M.D., 154 E. 49th St., City.

ADVERTISEMENTS

FOOD BETTER THAN MEDICINE

We provide vital, blood-making foods for all diseases. Sufferers from Dyspepsia, Constipation, Nervous Prostration, and Diabetes, should send for our free pamphlets.

HEALTH FOOD CO.,

74 Fourth Ave., New York.

Brooklyn office—9 Clinton Street.

Boston office—68 Commercial Street.

Pears' Soap

Matchless for the Complexion.

Adelina Patti



THE REAL SECRET OF THE WHITE ELEPHANT.

A Choice

THE DISEASES OF MODERN LIFE.

A work on the avoidable causes of Disease. By Benjamin W. Richardson, one of the most widely known of English physicians. 12mo, extra cloth, 500 pages, \$1.50.

One of the most important Health books ever published. It treats most fully of prevention of disease, by pointing out in a simple and practical manner the avoidable causes. We have arranged for a large Edition of this work as a Premium, and a copy in large type bound in extra fine cloth is offered to each subscriber to THE PHRENOLOGICAL JOURNAL, or we will give the Bust Premium.



PHRENOLOGICAL

Is widely known in America and nearly fifty years, and occupies, viz., the study of HUMAN NATURE, Physiognomy, Ethnology, Psychology, and "PHRENOLOGICAL HEALTH," and no expense will be spared to give it a general circulation, tending to the physical, mental, and morally. Parents and Teachers should know how to govern and train their children. THE PHRENOLOGICAL JOURNAL, that they may make the hearty approval of the public.

N. Y. Tribune says: "Few works will find perusal in the family than this rich storehouse of information, which never fails to illustrate the practical philosophy of life, with its lively expositions, apt anecdotes, and agreeable sketches of distinguished individuals."

N. Y. Times says: "THE PHRENOLOGICAL JOURNAL proves that the increasing years of a periodical are no reason for its lessening its enterprise or for diminishing its abundance of interesting matter. If all periodicals increased in merit as steadily as THE PHRENOLOGICAL JOURNAL, they would deserve in time to share the honors of popularity."

The JOURNAL is published monthly. Every subscriber is given either the Bust Premium or the Book Premium. If the Bust Premium are sent, 25 cents extra must be received, and the expense of boxing and packing. If the Book Premium is sent, a smaller size, or the Book Premium. Send amount in P. O. Orders, Postal Notes, or age-stamps will be received. AGE-STAMP LIST, Posters, etc. Address

FOWLER & WELLS

THE
NOLOGICAL JOURNAL

AND
LIFE ILLUSTRATED.

A REPOSITORY OF
LITERATURE, AND GENERAL INTELLIGENCE,

DEVOTED TO
PHRENOLOGY, PHRENOLOGY, PHYSIOGNOMY, SOCIOLOGY, PSYCHOLOGY, EDUCATION,
AGRICULTURE, NATURAL HISTORY, AND TO ALL THOSE PROGRESSIVE
SCIENTIFIC AND LITERARY PURSUITS WHICH ARE CALCULATED TO REFORM, ELEVATE, AND IMPROVE
HUMANITY, SPIRITUALLY, INTELLECTUALLY, AND SOCIALLY.

With Numerous Portraits from Life, and other Engravings

VOL. LXXIX. OLD SERIES—VOL. XXX. NEW SERIES.

JULY TO DECEMBER, 1884.

W. D. DRAYTON, A.M., AND N. SIZER, EDITORS.

NEW YORK:
WELLS CO., PUBLISHERS, 753 BROADWAY.
1884.

112

THE
PHRENOLOGICAL JOURNAL

AND
LIFE ILLUSTRATED.

A REPOSITORY OF
SCIENCE, LITERATURE, AND GENERAL INTELLIGENCE,

DEVOTED TO

**ETHNOLOGY, PHYSIOLOGY, PHRENOLOGY, PHYSIOGNOMY, SOCIOLOGY, PSYCHOLOGY, EDUCATION,
MECHANISM, AGRICULTURE, NATURAL HISTORY, AND TO ALL THOSE PROGRESSIVE
MEASURES WHICH ARE CALCULATED TO REFORM, ELEVATE, AND IMPROVE
MANKIND, SPIRITUALLY, INTELLECTUALLY, AND SOCIALLY.**

Embellished with Numerous Portraits from Life, and other Engravings

VOL. LXXIX. OLD SERIES—VOL. XXX. NEW SERIES.

JULY TO DECEMBER, 1884.

H. S. DRAYTON, A.M., AND N. SIZER, EDITORS.

NEW YORK:
FOWLER & WELLS CO., PUBLISHERS, 753 BROADWAY.

1884.



“Quiconque a une trop haute idée de la force et de la justesse de ses raisonnemens pour se croire obligé de les soumettre a une expérience mille et mille fois répétée ne perfectionners jamais la physiologie du cerveau.”—GALL.

“I regard Phrenology as the only system of mental philosophy which can be said to indicate, with anything like clearness and precision, man’s mixed moral and intellectual nature, and as the only guide short of revelation for educating him in harmony with his faculties, as a being of power; with his wants, as a creature of necessity; and with his duties, as an agent responsible to his Maker and amenable to the laws declared by the all-wise Providence.”—JOHN BELL, M.D.

“To Phrenology may be justly conceded the grand merit of having forced the inductive method of inquiry into mental philosophy, and thus laid the permanent foundations of a true mental science.”—*Encyclopedia Britannica*, 8th Edition.



CONTENTS—JULY TO DECEMBER, 1884.

	PAGE		PAGE
A			
Academy of Anthropology.....	49	Fashion and Nature.....	38
Ancient Ship	49	Food Reform and Longevity..	115
Ancient Man	52	Fall of Meteoric Matter.....	168
Ancient Art, Preservation of..	169	Facts and Simple Formulæ.....	171
America's Fifteen Inventions..	171	Fire-proof Dress, A New.....	236
Agriculture, Progress of.....	172	Feeble-minded at School, The..	271
Arctic Expeditions, Their Results	300	French in China, The.....	342
Ancestors of the American Indians	300	Fencing, Improvement in.....	357
Animals, Rare, in Central Park...	300	Fruit Eating.....	368
Appros to the Season.....	305	G	
Animals as Physicians.....	354	Good Wife's Influence.....	40
Ants, To Expel.....	360	Gaeta, Citadel of.....	77
B			
Blaine, James G.....	6	Girls, Plea for.....	92
Be of Good Cheer.....	54	Germ—ane.....	110
Blarney Castle and "Blarney-		Good Example, A.....	111
Stone".....	145	Glass Tubes, Conduct of.....	171
Bed, How to Make a.....	165	Gambetta, C. J. M.....	178
Butler, Benjamin F.....	186	Greely Expedition, Its Effects...	302
Boys, For.....	231	H	
Bartholdi, Auguste.....	249	Human Life Longer.....	44
Birds' Tastes for Colors and Music	301	Hydrophobia Puzzle, The.....	46
Brain Organization, A Surgeon on	354	House Insects, to Destroy.....	51
Bones, Reducing.....	360	Hot Water for Mucous Surfaces..	104
Business Perversion.....	364	Health Exhibition, London.....	111
C			
Cerebration, Organic...22, 72, 127,		Hydrophobia, Prevention of.....	105
206, 260, 324		Hygienic Diet, Resources of.....	162
Craniologist's Paradise, A.....	24	Hygienic, Strictly.....	168
Child-Training, Hints on.....	36	Houses in the Health Exhibition..	170
Cure for Cancer, A.....	48	Happiness and Intelligence.....	243
China, Government and Customs	11, 82	House, Rare Old.....	287
China: Dress in.....	93	Head in Car Travel.....	353
California Ostriches.....	108	Human Skull, Old.....	358
Children and School.....	106	Helping Others.....	362
Common Sense in Money.....	114	I	
Cranial Affinities: Men and Apes.	130, 196	Illuminated Buoy, An.....	50
Contagious Diseases, Attack of..	164	Infant's Skull—Interior.....	135
Child Prodigy, A.....	166	Infected by a Parrot.....	168
Colds, to Avoid.....	167	Intellect in Religion.....	180
Capital Punishment and Philoso-		Imitating Others.....	309
phy.....	177	Individuality in Relation to Physi-	349
Cause of Cholera.....	177	J	
Critics' Organization.....	178	John Randolph's Advice.....	224
Christian Religion: History and		Japanese as Vegetable Eaters, The	295
Divisions.....192, 326		K	
Cholera and Uncleanliness.....	228	Library Notices..59, 118, 183, 246,	
Cheapness of Vegetarianism.....	278	311, 370	
Courteous, Study to be.....	288	Little Children and Old People...	81
Cagliostro as a Medium.....	341	Language, No. 6, Origin, etc.....	138
Coal Known to Romans.....	357	Longfellow and Tennyson.....	179
Clock in Trinity Tower.....	360	Lectures, The Two.....	180
D			
Diogenes and Plato on Pride.....	39	Liberty, the Statue of.....	249
Democratic Candidates, The.....	61	Literary Work and Tobacco.....	294
Disinfecting Rooms.....	112	Love and Blind Passion.....	222
Delia and Blanche.....154, 218		M	
Deafness, Partial, A Remedy.....	230	Moral Culture, The Effect of.....	11
Dress Reform.....	289	Mirth.....58, 117, 182, 246, 310,	370
Deluge and Noah's Ark, The.....	290	Milk, Hygienic Point of View.....	99
Diet and Cholera.....	307	Men and Apes: Cranial Affinities,	
Decay of Teeth, Prevention.....	346	130, 196	
Darkness and Health.....	355	Mind Cure, The.....	158
Diet, Unsuitable.....	367	Moderate Drinking.....	265
E			
Education, Compulsory, at Large..	30	Migratory Needle, A.....	167
Economy of Life.....	32	Mites in Hennyery.....	169
Egypt, In.....	111	Man without a Face, A.....	170
Electric Street Railway, An.....	234	Measurement of Vitality.....	177
Eccentric People.....	306	Milton's "Samson Agonistes".....	265
Engineering, Marvellous.....	357	Mental Dialogue.....	298
		"Mother to Other Mothers," A..	309
		Milkowski, Zygmund Fortunad..	313
		Merv and its People.....	333
		Metric System not Better, The...	358
N			
		Negro South, The.....	176
		New Orleans Exposition, The....	234
		Nurses, Professional.....	296
O			
		Oil in the Home.....	90
		Orange Scab Insect, The.....	172
		Origin of the Orange.....	235
		Ocean Phenomena, Curious.....	300
		Ovens, a New Thing.....	301
		Organic Cerebration, No. 7.....	324
P			
		Personals.....58, 116, 181, 245,	
		310, 369	
		Panic on 'Change.....	111
		Phrenology, Effects of.....	115
		Positions in Sleep and Dreams...	168
		Photographs as Portraits.....	172
		Physical Changes in England.....	172
		Phrenology, Antecedents of.....173,	
		237, 303	
		Phosphorescent Eye-Piece.....	234
		Phosphorescence, Nature of.....	233
		Political Liberty.....	240
		Plaster of Paris, Setting of.....	233
		Personalities.....	274
		Puritan Race Perish, Will the...	262
		Presidents of the British and	
		American Assoc. of Science.....	275
		Profession or a Trade.....	277
		Progress, Contrasts of.....	302
		Photo-Engraving.....	307
		Pompeii, Water Supply of.....	320
		Progress: an Evolutionist's View..	331
		Plants, Care of House.....	350
		Pain Under Shoulder.....	367
Q			
		"Queen Anne" Style, The.....	106
R			
		Rome, Excavations in.....	50
		Running a Farm.....	107
		Religious Education, True.....	125
		Robin and the Phrenologist.....	147
		Reform, Candidates of.....	185
		Record of Lives, Ineffaceable....	211
		"Rather Strange".....	214
		Responsible for Sin.....	241
		"Reaping the Whirlwind".....	279
		Rheumauism, Notes on.....	293
S			
		Sicily and its Memories.....	19
		Summer Living.....	41
		Salt.....	51
		Sick, Care of.....	100
		Schwenkfelders, The.....	149
		Sense-Perception in Black Races..	163
		Sunlight on Glass.....170, 237	
		Some Medicated Springs.....	175
		Shoulders, Round.....	178
		St. John, John P.....	180
		Scientists, Two British.....	209
		Stutterers.....	232
		Selfish and Hard-hearted.....	308
		Sentiments, Semi-intellectual....	324
		Superstitious, Old.....	343
		Scourge of Quackery, The.....	356
		Station Buffet, The.....	356
		Sorghum as a Saccharine Element	357

CONTENTS.

PAGE		PAGE		PAGE	
Sixth Sense, The.....	361	Tea Culture in the South.....	234	Wisdom.....	58, 117, 182, 245, 310, 369
Surgical Case, A.....	367	Temperance Education, Power of	290	When Children Should Go to	
Scrap-Book, Keep a.....	368	Talk, Unwise.....	367	School.....	106
T					
Trance State, or Suspended Ani-		Varnishing, Hints on.....	105	Wood-Steaming and Bending.....	106
mation.....	67	Vitality, Measurement of.....	177	Whole-Wheat Meal for Food.....	114
Two Teachers' Methods.....	86	Vegetarian Races.....	178	Women in California.....	224
Trichinosis, or the Pork Dis-		Ventilation of Bedrooms.....	297	Water Supply of Pompeii.....	229
ease.....	95, 160			Well-Dressed Woman, A.....	345
Trance, Artistic Relations of.....	107	V			
Teeth of the Future, The.....	109			Why Women Break Down.....	351
Taste, Function of.....	226	W			Whispering Gallery, A Natural... 358
		What is your Object?.....	57	Wants, Growing.....	353
				What Has Been, Will Be.....	368

ILLUSTRATIONS.

PAGE		PAGE		PAGE		
A						
Approbateness.....	75	G				
Athanasius.....	328	Greek Theatre at Taormina.....	21	Punishment in the Tub-Cangue.. 85		
B						
Blaine, James G.....	5	Gorilla at Home, The.....	197	Pinkerton, Allan.....	121	
Bancroft, Geo.....	129	Gorilla's Skull.....	198	Propensities—Large Skull.....	207	
Blarney Castle.....	146	" Showing Brain Pan.....	199	Playfair, Sir Lyon.....	210	
Butler, Benjamin F., at 63.....	187	Gibbon, Thos.....	203	People of Merv.....	335	
Bartholdi, Auguste.....	249	H				
Brain, Lateral View of.....	258	Hendricks, Thomas Andrews.... 65		Rubens.....	325	
C						
Cleveland, Stephen Grover.....	61	Human Skull.....	199	S		
Cautiousness.....	73	Holland, Dr. J. G.,—Ideality.... 325		Social Organs, Large.....	13	
Citadel of Gaeta, The.....	77	L			" Small.....	13
Chinese, Group of.....	83	Logan, John A.....	9	Sicily, People of.....	20	
Cervical Vertebra, Immature.....	133	Lafayette, Statue of.....	251	Salunto Ruins.....	23	
Capillary Vessels, Magnified.....	161	Lesley, Prof. J. P.....	276	Simpson, Bishop.....	79	
Chimpanzee, The.....	203	Liberty, Statue of.....	253	Self-esteem and Firmness Large.. 123		
Courbet, Admiral.....	343	M			Schwenkfeld, Caspar.....	140
D						
Dodge, James R.....	16	Man.....	203	St. John, John P.....	189	
Development of the Embryo.....	99	Milkowski, Zygmund Fortunad.. 313		Selfish Organs, Large.....	261	
E						
Emil, an Idiot.....	201	Moltke, Count Von.....	324	" Small.....	261	
F						
Furniss, Frederick H.....	33	N			T	
Faculties, Groups of.....	72	Neck, Vertebra of.....	132	Temple of Neptune at Paestum... 22		
		North Gate of the City of Merv.. 334		Trichinae, Free.....	76	
		North Side of Merv Fortifications. 339		" Encapsulated.....	95	
		O			" Female.....	98
		Orang-Outang.....	203	" Advanced State, Female... 160		
		Ordinary Houses of the Mervites. 337		" First Trace of Capsule.. 160		
				" in Muscle.....	161	
				" Posterior Extremity.....	161	
				" Female with Ova.....	161	
				Thompson, Sir William.....	210	
				Torch of Liberty.....	252	
				Theodosius the Great.....	339	

004
A79

7004A79

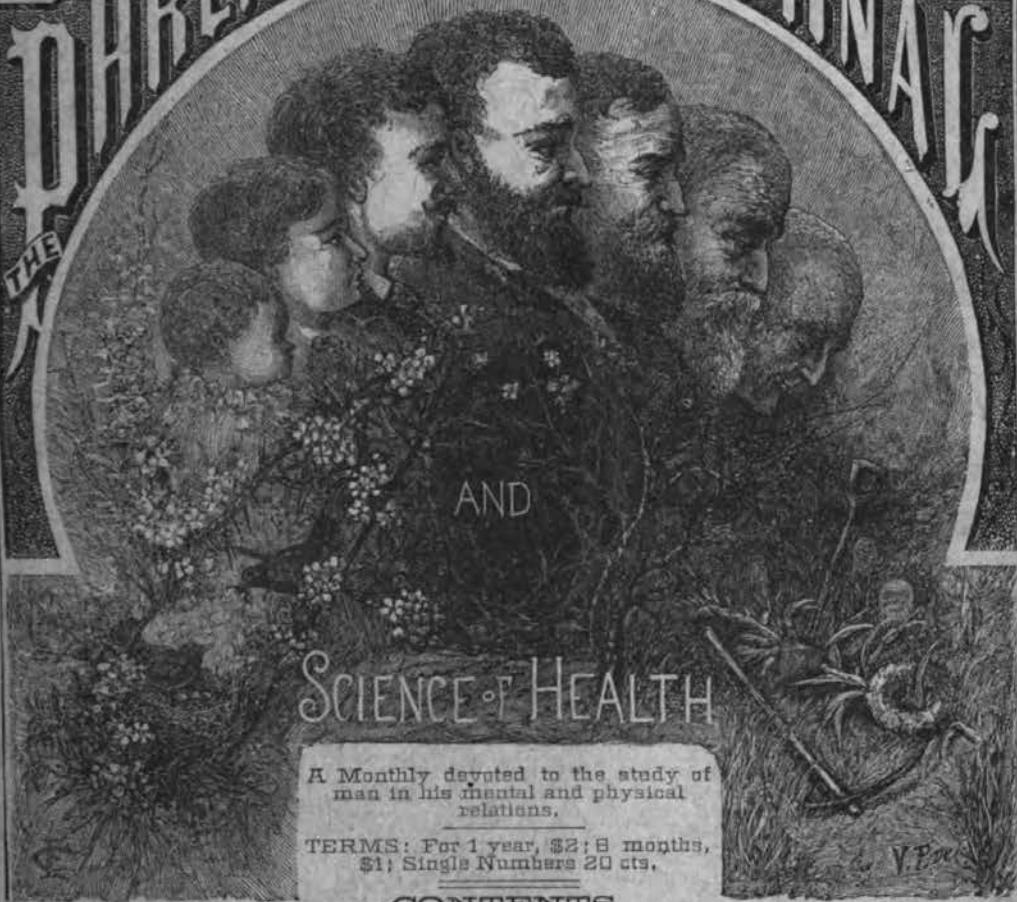
Old Series, Vol. 79
July, 1884.

KNOW THYSELF

New Series, Vol. 30
NUMBER 1.

PHRENOLOGICAL JOURNAL

THE



AND

SCIENCE OF HEALTH

A Monthly devoted to the study of
man in his mental and physical
relations.

TERMS: For 1 year, \$2; 8 months,
\$1; Single Numbers 20 cts.

CONTENTS.

I. The Republican Candidates for THE PRESIDENCY. With Portraits, . . .	5	Notes in Science and Agriculture.— The Academy of Anthropology; A Food Reform Society; An Ancient Ship; An Illuminated Buoy; Forests and Drainage; A New Process of Tooth-Drawing; Ex- cavations at Rome; To Keep Down House Insects; Caution in Silk Culture; "Salt"; Cauliflower Raising,	49
II. Organic Cerebration, II; OR HOW THE SOCIAL FACULTIES COMBINE, . . .	12	Editorial Items.—Ancient Man; Another Panic on 'Change; Be of Good Cheer; To- bacco in the Church; The Course in Phrenology,	52
III. J. R. Dodge, Statistician to the U. S. Agricultural Department. Por- trait,	16	Answers to Correspondents.—Combative- ness and Self-esteem; Treatment of Colds; The Man of Purpose; Strong Characteristics; Inquiry about Moses; Physical Growth; Eruptions Produced by Medicines; Effects of Sleeping Together; Scientific Men and Phrenology; Eye Cul- ture. WHAT THEY SAY.—What is your Object? Convinced,	56
IV. Sicily and Its Ancient Memories. Illustrated,	19	Personal—Wisdom—Mirth—Library.	
V. A Craniologist's Paradise,	24		
VI. Compulsory Education at Large,	30		
VII. Frederick H. Furniss. Portrait,	33		
VIII. Hints on Child-Training,	36		
IX. Fashion and Nature,	38		
X. Diogenes and Plato on Pride,	39		
XI. Summer Living,	41		
XII. Human Life Longer,	44		
XIII. The Hydrophobia Puzzle,	46		

ENTERED AT THE POST-OFFICE AT NEW YORK AS SECOND-CLASS MATTER.

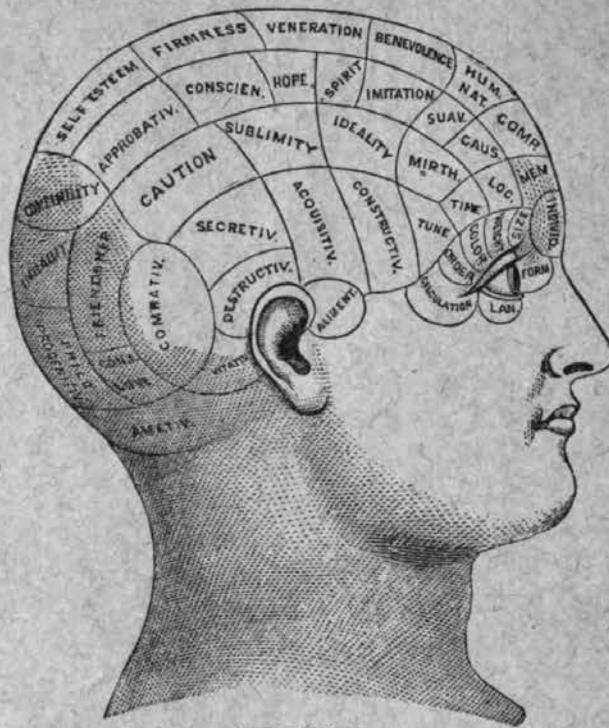
FOWLER & WELLS CO., Publishers, 753 Broadway, New York

L. N. FOWLER, Imperial Buildings, London, England.

A Choice of Premiums.

THE DISEASES OF MODERN LIFE.

A work on the avoidable causes of Disease. By Benjamin W. Richardson, one of the most widely known of English physicians. 12mo, extra cloth, 500 pages, \$1.50. One of the most important Health books ever published. It treats most fully of prevention of disease, by pointing out in a simple and practical manner the avoidable causes. We have arranged for a large Edition of this work as a Premium, and a copy in large type bound in extra fine cloth is offered to each subscriber to THE PHRENOLOGICAL JOURNAL, or we will give the Bust Premium.



This bust is made of Plaster of Paris, and so lettered as to show the exact location of each of the Phrenological Organs. The head is nearly life-size, and very ornamental, deserving a place on the centre-table or mantel, in parlor, office, or study, and until recently has sold for \$2.00. This, with the illustrated key which accompanies each Bust, should be in the hands of all who would know "How to Read Character." It is now offered as a Premium to each yearly subscriber to THE PHRENOLOGICAL JOURNAL, or we will send the Book Premium.

THE PHRENOLOGICAL BUST

THE

PHRENOLOGICAL JOURNAL

Is widely known in America and Europe, having been before the reading world nearly fifty years, and occupying a place in literature exclusively its own, viz., the study of HUMAN NATURE in all its phases, including Phrenology, Physiognomy, Ethnology, Physiology, etc., together with the "SCIENCE OF HEALTH," and no expense will be spared to make it the best publication for general circulation, tending always to make men better physically, mentally, and morally. Parents should read the JOURNAL, that they may better know how to govern and train their children. Young people should read the JOURNAL, that they may make the most of themselves. It has long met with the hearty approval of the press and the people.

N. Y. Tribune says: "Few works will better repay perusal in the family than this rich storehouse of instruction, which never fails to illustrate the practical philosophy of life, with its lively expositions, appropriate anecdotes, and agreeable sketches of distinguished individuals."

N. Y. Times says: "THE PHRENOLOGICAL JOURNAL proves that the increasing years of a periodical is no reason for its lessening its enterprise or for diminishing its abundance of interesting matter. If all magazines increased in merit as steadily as THE PHRENOLOGICAL JOURNAL, they would deserve in time to show equal evidences of popularity."

Christian Union says: "It is well known as a popular storehouse for useful thought. It teaches men to know themselves, and constantly presents matters of the highest interest to intelligent readers, and has the advantage of having always been not only 'up with the times,' but a little in advance. Its popularity shows the result of enterprise and brains."

Sunday-School Times says: "A great amount and variety of useful and instructive matter finds its way into this PHRENOLOGICAL monthly. It is progressive and liberal, in the good sense of those terms—a readable, valuable journal."

TERMS.

The JOURNAL is published monthly at \$2.00 a year, or 20 cents a Number. To each yearly subscriber is given either the BUST or BOOK Premium described above. When the Premiums are sent, 25 cents extra must be received with each subscription to pay postage on the JOURNAL and the expense of boxing and packing the Bust, which will be sent by express, or No. 2, a smaller size, or the Book Premium, will be sent by mail, post-paid.

Send amount in P. O. Orders, P. N., Drafts on New York, or in Registered Letters. Postage-stamps will be received. AGENTS WANTED. Send 10 cents for specimen Number, Premium List, Posters, etc. Address

FOWLER & WELLS CO., Publishers, 753 Broadway, New York

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 79. 1884.

NUMBER 1.]

July, 1884

[WHOLE No. 547.



JAMES G. BLAINE.

THE REPUBLICAN CANDIDATES FOR PRESIDENT AND VICE-PRESIDENT.

OUT of the din, heat, enthusiasm, and confusion of the Republican Convention at Chicago comes the announcement that James G. Blaine, late United States Senator from Maine, has been nominated for the Presidency. There were but four ballotings, with the result of 544 votes for

the successful nominee, out of 816 votes cast. How this result was brought about we shall not discuss. The campaign that will be opened shortly by Republicans and Democrats, in warm contest for success at the November election, will reveal to the deliberate observer what there was of

"machine" work, faction haggling, or "trading," if any, among the State delegations that made up so large an assembly in the Exposition building of the Lake City. Rarely has a great political party met in general convention so promptly decided an important question; and in this respect disappointed those sanguine ones who expected a protracted conflict, and the appearance of sundry "unknowns," or "dark horses," before the determining vote.

The nomination of General Logan for the Vice-Presidency appears to have been a foregone conclusion after the settlement of the Convention upon a name for the first place on the ticket. There was but one ballot and the nomination was almost unanimous.

A word here may not be impertinent or novel on this matter of naming a Vice-President. It has been the experience of our nation during the past thirty-six years, to lose several Presidents by sudden death, and that in the early part of their term, and wisdom, on that account, if not from the very nature of the position itself, would dictate great care in the selection of a man for the second place in our nation's council. One would think from the proceedings of a Presidential Convention as usually conducted, that after the man had been selected whose name was to be mentioned first on the ticket, the appointment of him whose name would be next in honor, was a comparatively trivial matter, and to be hurried over as speedily as possible. No, with the melancholy history of Lincoln and Garfield fresh in our mind, we consider haste in nominating a Vice-President as imprudent and ill befitting the needs of our Government and the dignity of a great political party. In the present instance, the candidate of the Republican party for Vice-President, although so quickly decided upon, may not be unsatisfactory to the majority of those whose custom it is to vote on that side, as the man has been long and honorably known to the people.

JAMES G. BLAINE FOR PRESIDENT.

A few years ago in remarking upon the character of Mr. Blaine as shown in his portrait we said :

"Force seems to be written all over the head and face. He has courage amounting to audacity; the real pluck that does not stop to reason, to consider personal safety, or the risk involved; and there is observable the most remarkable singleness of purpose, as if his whole mental life were riveted on a particular object, just as the rifle in the hands of an expert marksman may be said to look at the bull's-eye and try to hit it. We can imagine him a boy playing at marbles, or some more manly game, or as a man, leading the crowd, insisting on his rights, and rectifying errors with a ringing, dominant voice that would be heard above all. In connection with these marks we see generosity, hearty liberality, and especially the disposition to take the part of the weak against the strong. As a boy, he never stopped to measure antagonists, and his battles were usually fought with those older and larger than himself. Those of his own age soon learned not to venture an assault upon him, and among his equals in strength he did not pick quarrels. He simply repelled aggression, and helped to settle the quarrels of others. Those who were older, larger, and stronger, who dared to attack him, usually found him ready to fight, if assailed or insulted, at a moment's notice.

"That face indicates remarkable health and vigor of lungs; good digestion, with something of unsteadiness in the circulation; hence, as he advances in years, it would be safe for him to avoid unusual exertion, or the tendency to become unduly excited.

"The face indicates strength, courage, fortitude, force, and ardor. The forehead and eyes show practical talent, ability to gather and remember knowledge, holding it in solution ready for utterance; and that fulness of the eye, and the swollen appearance below it, show remarkable

ability to express his thoughts, feelings, and opinions.

"He has large Comparison, which gives him keenness of criticism, and his Combativeness and Destructiveness give sharpness and vigor to his reproofs. He never feels better than when he is the champion of a person or cause that enlists his personal sympathy.

"He reads character remarkably well, which aids him in exerting influence with different classes of men, and qualifies him for a leader. He is more ardent, enthusiastic, and zealous than he is mellow, bland, and smooth. He has a good degree of Self-esteem; he believes in his own power, his own cause, and in his ability to vindicate himself in what he believes. He is as strong in his friendships as he is in his antipathies; will go any length to back up his friends and his ideas; and his enemies find out that he is a brave, open, and fierce opponent. He looks on the sunny side, expects favorable results, and is well qualified to breathe life into any cause or subject which needs strength, a clear intellect, and bravery of spirit.

"He has good financial talent; would do well in any department where economy and judicious management are required. He has scholarly talent, in the direction of literature and practical science. And if he had devoted himself to medicine and surgery, he would have made an eminent teacher in that field of inquiry. As a lawyer or legislator, and as a business man, he would see quickly and clearly, and go straight on to the accomplishment of his purposes with force and vigor, with tact, sagacity, and uncommon self-reliance."

From 1862 Mr. Blaine has been a representative of his State in Congress, and almost from the first conspicuous as a man of positive opinions, and bold and aggressive in their assertion.

He was born at Indian Hill, Washington County, Pennsylvania, January 31, 1830, his ancestors being among the early settlers of that State, from the North of Ireland, but having a large infusion of

Scottish blood in their veins. Ephraim Blaine, his great grandfather, was honorably distinguished as an officer during the Revolutionary war, and it is said that the preservation of the Federal army while stationed at Valley Forge, from the horrors of starvation, was in a great degree owing to his exertions.

At the age of twelve he was sent to school in Lancaster, Ohio, where he lived in the family of Mr. Thomas Ewing, a relative of his father. A year later he entered Washington College, where he was graduated in 1847. In 1850 he became a teacher in the military academy at Blue Lick Springs, Kentucky. A few years later he returned to Pennsylvania and studied law, but never practiced it. In 1853 he went to Maine, where he commenced a literary career, finding employment as editor on the *Kennebec Journal*, and subsequently on the *Portland Advertiser*. In these connections he pursued no negative course in matters of a political nature, and being aided by influential relatives on the side of his wife, he was soon regarded as a rising exponent of Republican principles.

In 1858 he was nominated and elected for membership in the State Legislature from the city of Augusta, and served two years. Then he was chosen Speaker of the House, and filled that position with ability and credit until 1862, when he was elected by a good majority to Congress, and took his seat at its thirty-eighth session. In this new legislative field he found ample range for his vigorous intellect, and taking an advanced stand among the promoters of the war for the Union, he soon began to be regarded as a leader on the Republican side. His course proving very acceptable to his Maine constituency, he was re-elected repeatedly. On his election to the Fortieth Congress, he received as the candidate of the Union Republicans, 14,900 votes, against his opponent's 8,300.

In June, 1876, Mr. Blaine was appointed to fill the vacancy in the United States Senate, caused by the resignation of Mr. Morrill, of Tariff reputation, who had

been made Secretary of the Treasury, and the next year he was elected for the full term of six years. In 1880 he was put forward with great earnestness by a large constituency as a candidate for the Presidential nomination, and would probably have been the candidate of his party had not the persistency of the Grant faction rendered it expedient for the Blaine men to unite with the opponents of Grant in the selection of the unfortunate Garfield. For a short time he held the portfolio of Secretary of State, but the death of Mr. Garfield, and the succession of Mr. Arthur brought about a change in the Cabinet, and the retirement of Mr. Blaine. Into the controversies of political leaders it is not our purpose to go—they are topics that are discussed with the broadest latitude by the newspapers. Nor is it expedient that we refer to incidents in Mr. Blaine's life that are alleged to sully his reputation for straightforward, manly conduct. A small foible in a leading politician is magnified by his enemies into a capital sin, and that which shows him to be but a mortal among mortals, is often construed in terms bordering on the demonic by envious and disappointed politicians.

In appearance, Mr. Blaine is far from commonplace. He is above the medium height, yet with a frame so strongly and compactly built that he does not seem tall. Upon a well-rounded and powerful trunk, his large and well-developed head is set, with its strong, expressive, and really handsome features. His eyes are brilliant and keen, their expression of vigilance being increased by the deep, overhanging brows. A writer whose political leaning is toward the side in opposition to the motives and measures of the Maine statesman, thus described him when engaged in debate: "When he rises to speak you are at once impressed with his wonderful vigor, vitality, nerve-power. He is quick, agile, and strong in his movements, stepping backward and forward in the aisle as argument leads him in aggressive movements toward his opponents or persuasive efforts with his friends. He

treads lightly, but firmly; his gestures, if studied, became second nature to him long ago, and are now made with unconscious grace and strength, and he emphasizes a point with either hand in a masterly way that would indicate some practice with the boxing-gloves. His style of speaking is clear, rapid, vigorous. The magnetism of his audience and the spirit of the occasion thrill and enkindle him, and he dashes impetuously on in his argument. Not a little of his influence is due to his rich, manly voice, which he pours out until it fills the hall of Representatives without uttering a false tone, or giving an inflection that would be out of place in a conversation with a friend. He can, in one word, make a speech without overstraining himself or falling into mannerisms."

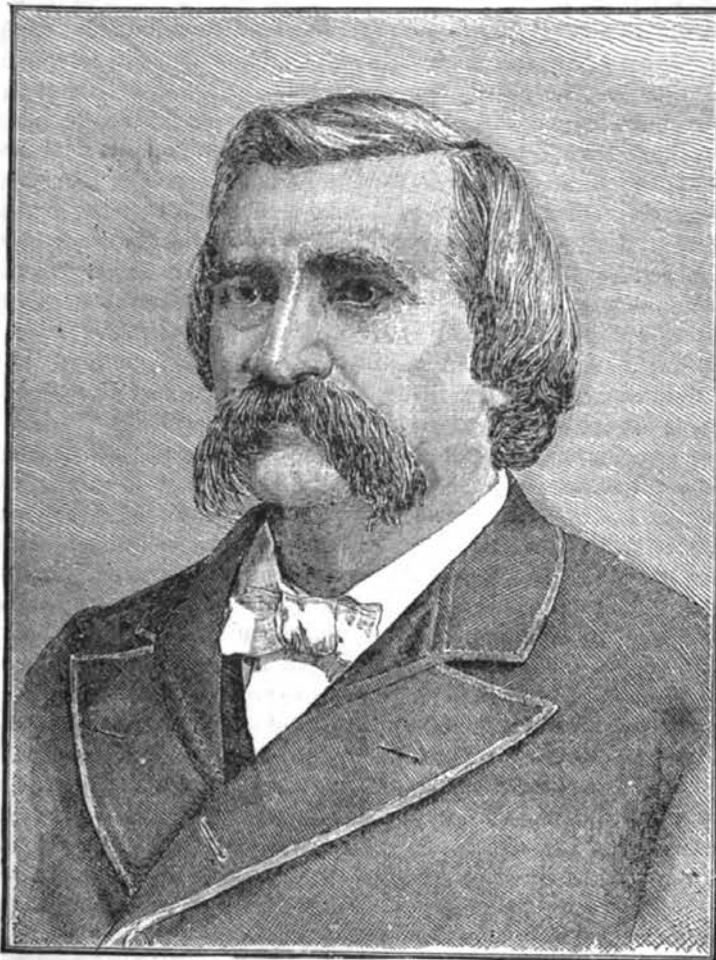
MAJOR-GENERAL JOHN A. LOGAN FOR
VICE-PRESIDENT.

General Logan has the motive-mental temperament—in other words, a combination of the bilious and the nervous elements in his physical make-up. He is tall and comparatively slim in body, and his head is formed on the same plan. From the ear to the top it is very high, and it is long on the top from front to rear. Physically, he is wiry, tenacious, elastic, enduring; so in the tissue of his brain there are qualities that indicate a similar character. The largest organs in the intellectual group are those in the centre of the forehead: Individuality, Comparison, Human Nature, Size, Form, and Locality. The next largest organs of the brain are those in the crown: Self-esteem, Firmness, and Conscientiousness, together with Benevolence, which is decidedly prominent. Secretiveness and Acquisitiveness are moderate or small, and their effects can only be partially and for the most part passively supplied by the intellect. He may make money easily; but will he keep it? We would not select him for a financier nor for a banker; but he would have made a capi-

tal engineer, explorer, navigator, or a pioneer.

He is careless of mere ornament, but values the substantial. His Ideality is not large, and love of the beautiful is subordinate to his sense of the useful. In form and feature General Logan is strongly marked; his hair is iron grey and wiry; his skin a reddish white or a

nearly twenty years ago: "General Logan is like the great West from whence he comes: broad and brave; frank and free! Without pretension or affection; without bullying or bluster, he is cool and courageous; perfectly composed, and always self-possessed. He is everywhere at home, and at your service to go before and to break the way. If not humble, he is no



JOHN A. LOGAN.

livid brown; eyes full, black, and piercing; nose prominent; nostrils large; chin long and projecting; jaws strong and well set on; mouth large but well cut; lips full and firm. His breathing, circulation, and digestion are excellent, and he is in all respects a man above the average in power and capacity.

The late Mr. S. R. Wells said of him

sycophant. If not diffident, neither is he over-confident. He is hopeful, but cautious; resolute, if not always discreet. He is both severe and sympathetic, and he can both love and hate. He acknowledges no master but his convictions and his God; no authority but judgment and justice. He is a kind friend and a bitter opponent; a generous giver, though he would ask

for himself no favor. One of his faults is prodigality, and he needs more economy."

John Alexander Logan was born near the present town of Murphysboro', in the county of Jackson, Illinois, on the 9th of February, 1826. His father, Dr. John Logan, emigrated from Ireland and settled in Illinois in the year 1823. His mother, Elizabeth Jenkins, was a native of Tennessee. The fruits of this marriage were eleven children, John A. being the eldest. During young Logan's boyhood, schools were scarcely known in Illinois; accordingly he had only such opportunities of technical instruction as presented themselves upon the appearance in the neighborhood of some itinerant schoolmaster. In 1840 he attended an institution with the local name of Shiloh College, which was nothing more, however, than a country academy.

On the breaking out of the Mexican war, he volunteered and was elected a lieutenant in a company of the First Illinois Infantry and afterward served as adjutant of his regiment. In the fall of 1848, upon his return home, he commenced the study of law in the office of his uncle, Alexander M. Jenkins, formerly Lieutenant-Governor of Illinois. In November, 1849, he was elected Clerk of Jackson County. In 1850 he attended a course of law lectures at Louisville, Ky., receiving his diploma in 1851, when he entered into practice with his uncle. The following year he was elected prosecuting attorney of the Third Judicial District, and in the fall of the same year he was chosen to the State Legislature, to which position he was three times re-elected. In 1856 he was a Presidential elector on the Democratic ticket for the Ninth Congressional District and voted for James Buchanan for President. Two years later he was elected a member of Congress from the same district, receiving a large Democratic majority, and at the expiration of his term re-elected.

It is said that at the beginning of the civil war, Logan entertained the thought of espousing the Southern cause. But the fact is known that when the troops

that had been assembling around the national capital in the summer of 1861 began to move out to meet the advancing Confederate army Logan threw down his pen and entered the ranks as a common soldier, and participated in the first battle of Bull Run, being among the last to leave the field. Returning to his home, he assisted in raising troops, and when on Sept. 18 the Thirty-first Regiment of Illinois Infantry was organized Logan was commissioned colonel. The first engagement in which he and his command participated was the battle of Belmont, in November of the same year, when his ability as a commander, and his dash and intrepidity foreshadowed the fact that he was to play a conspicuous part in the operations of the army. He took part in the movements at Fort Henry and was present at the battle of Fort Donelson, where he received a severe wound, and did not rejoin his command until some weeks afterward. On the 3d of March, 1862, he was made Brigadier-General and was in the siege of Corinth as commander of the First Brigade in Gen. Judah's division of the right wing of the army, and for his services was publicly thanked by Gen. Sherman in his official report.

When the attempt to take Vicksburg began, in the fall of 1862, Gen. Logan had command of the First Division of the right wing of the Thirteenth Corps. On the arrival of the command at Memphis, Dec. 31, 1862, the Seventeenth Army Corps was organized, and on Jan. 11, 1863, Gen. Logan was assigned to the Third Division, in which position he remained until the fall of Vicksburg, when he was assigned to the command of the Fifteenth Army Corps. In the movements about Vicksburg from February, 1863, until July 4, when Gen. Pemberton surrendered, Gen. Logan with his command was actively engaged, and it was through a number of brilliant movements by him that important advantages were gained and the final result hastened.

In the Atlantic campaign Gen. Logan's corps was a part of McPherson's command, which, as Gen. Sherman said, was

the snapper to the whip with which he proposed to punish the enemy. During the movement Logan was conspicuously at the front and the forces under his immediate command bore an important part in all the actions and manœuvres that resulted finally in the taking of Atlanta and the surrounding strongholds of the Confederates. At Dallas, as at Resaca, Gen. Logan's command was in the front, and the desperation with which the men under him fought showed their implicit confidence in their commander to lead them to victory under the most perilous circumstances.

On July 22, 1864, Logan, as commander of the Fifteenth Army Corps, was ordered in pursuit of the enemy south of Atlanta. In the hard-fought battle that followed, Gen. McPherson was killed, and Gen. Logan succeeded him in command of the Army of the Tennessee. The success of the battle was accorded to Logan by Gen. Sherman's official report. In subsequent operations in the South, Gen. Logan's command was always prominent, and usually successful.

After the close of the war Gen. Logan was offered the place of Minister to Mexico, but declined. In 1866 he was elected to Congress from the State-at-large in Illinois by a majority of 55,987, and in the Fortieth Congress was one of the managers of the impeachment of President Johnson. In the next, the Forty-first Congress, Logan began to make his mark as a parliamentary leader. He was then Chairman of the Military Committee, and was charged with the duty of investigating the sale of cadetships to the Naval and Military Academies. A number of Southern carpet-bag Republicans, it was thought, had swelled their exchequer in this wise. Pursuing the investigation with assiduity, Logan caught one of these and showed up his methods, and compelled him to resign.

In 1870 Logan was elected by the Illinois Legislature to the United States Senate to succeed Richard Yates. After serving his term he was defeated by the Independents, who united upon the Hon. David Davis as his successor, but he was

again elected to succeed Oglesby in 1879. He has always taken an active part in the legislation of the Senate and has introduced many useful bills. His efforts for the soldiers have been unremitting, and among his last operations in Congress was his earnest opposition to the measures introduced for the restoration of Fitz John Porter to the army.

THE EFFECT OF MORAL CULTURE.—When the good ship *Schiller* was steered by a faithless captain upon the fatal rocks and went down slowly to her doom, a group of six people sat in the pavilion, holding each other's hands, calm, praying, awaiting death. One was a girl, young, petted, surrounded with luxury; one was a scholar, trained in many tongues, a woman of science and skill, with a purpose and a career; one was a daughter, with life all before her; one was a wife and one was a husband, with their consecrated past. And there sat they, in the midst of the night, going down slowly into the shrouding waters, calm, prayerfully conquering death. And as the water rose around them they arose, still holding each other's hands. And so, weak, helpless, they were engulfed in the awful depths, but sublimely triumphant, they passed out into the unseen Universe. It is character that prevails. What odds whether it is music or medicine, or costume or color, a man's unencumbering garb or a woman's multitudinous drapery that has occupied the mind, if that mind can encounter the vicissitudes of life with fortitude, and face death with tranquillity.

WORLDLY GREATNESS.

"How miserable a thing is a great man!
Take noisy, vexing greatness they that please,
Give me obscure and safe and silent ease.
Acquaintance and commerce let me have none
With any powerful thing but Time alone.
Oh, wretched he, who called abroad by power,
To know himself can never find an hour;
Strange to himself, but to all others known—
Lends every one his life but uses none.
So, ere he tasted life, to death he goes,
And himself loses ere himself he knows."

JOHN CROWNE.

ORGANIC CEREBRATION.—NO. 2.

(Continued.)

HOW THE SOCIAL FACULTIES COMBINE.

HAVING spoken of the influence of the different groups of faculties in leading off and exerting influence, and laying the foundation of success, in different persons, we come now to consider how the different faculties in each of the groups may give shading and peculiarity to the character; and we hope to make the matter so plain that good observers will be able to judge by the motions, attitudes, and language of nearly every person, which of the faculties in any group is most strongly developed.

It will not be a difficult thing for a person, who knows what faculties belong to a special group, to lead the conversation in the direction in which faculties in that group will be interested. In some characters the faculty of Friendship is strongest. That relates us fraternally to persons of either sex or any age. In the lower animals strong friendship is sometimes established between a horse and a cat; between a dog and a horse; between a cow and a sheep; transcending the ordinary affection existing between members of the same species of animals. There are a few classes of animals that do not have gregarious or friendly, grouping instinct. Cattle, horses, sheep, and birds of different kinds go in droves and flocks, and defend each other and make common cause against the common enemy. There are some birds and animals which hunt alone, and in the main live apart from their fellows.

The remarkable engraving (Fig. 1) represents the head of a young French lady who was strongly attached to a lady of her own age, and neither offers of marriage nor influence could induce her to leave her friend; this friend, however, died suddenly, and a day or two after the burial, she was found in her chamber dead, having committed suicide; she left a letter addressed to her parents which

revealed the state of her mind previous to the fatal act, the substance of which was that she could not survive the loss of her friend. If the reader will consider the immense mass of development backward from the opening of the ear; that the whole back-head is heavy and long in that region, the excessive development of all the social organs, especially the organ of Friendship, will be seen. One who has the social development weak (see Fig. 2), will have a short back-head; it will not be more than half as long from the opening of the ear backward as the other head (Fig. 1) is.

When Friendship predominates in the social group, it will absorb all the other faculties and lead them to act as it were through it. Instead of falling in love, such persons must be addressed through Friendship, and a fraternal feeling awakened and strengthened; afterward Conjugality and Amativeness will be called into action. This is illustrated by young ladies and gentlemen who attend school. When the term at the academy closes, those who have admired each other's intellectual attainments, and who have formed a friendly regard, will agree to write "friendly letters," and perhaps for six months this friendly letter-writing is carried on, when all at once, the lady, for instance, becomes conscious that something more than friendship is now awakened, and if that consciousness becomes reciprocal, it is easy to see that Friendship becomes the initiatory of conjugal and matrimonial attachment.

In age, when Amativeness is supposed to have little influence in the tie that unites the elderly people who have lived happily in marriage, Friendship becomes the strong tie, along with Conjugality, and their last days become so influenced by this bond of Friendship that they feel greatly troubled when separated, and are likely to follow each other to the grave without a long interval.

Persons with predominant Friendship will seek to call their little children upward toward fraternity; instead of stoop-



Fig. 1.—LARGE SOCIAL ORGANS.

ing down and petting the child, and wishing it to remain little, Friendship associates, fraternizes, says *we* to the little one, and desires to have the child grow tall and seem old and companionable to herself. Thus the mother will come to our office with her little boy, perhaps seven or eight years old; he has boots like a man, is dressed like a man, has a watch and a high hat and a cane, and the mother has trained him to act like a man; her request is made that we would examine "this young gentleman and see what his proper vocation will be." Another woman, in whom Parental Love is stronger, tries to keep the child back, to keep it young and little. She will dress him with a wide collar, parting his hair in the middle, curling it into ringlets; will keep infantile kilts on him as long as possible, and when he *must* dress like a boy, it is like a *little* boy, with a jacket. She will lead him in by the hand, he being almost as tall as his mother, and she will say with the tenderest kind of a smile as she looks upon him, "I want you to examine my *little* boy, and tell me what he is going to make." She will take off his hat or cap, and help him to the seat, and sit and smile on the "dear little thing" during the whole operation, and when she is ready to go she takes

him by the hand carefully and leads him away, his head and shoulders nearly as high as her own—Parental Love being unwilling to let go of him as a baby. Such a woman when she becomes a grandmother will call her great, six-foot high, bearded, grizzly sons, *boys*; she can not let them be men; to her they are always children, always boys. One of the other kind will speak of my sons, my oldest son, when he is not more than seven years old, provided she has one younger; and we never saw such a manifestation, without finding in the mother's head the organs developed according to the principle here set forth.

Where Conjugal Love is the strongest, men for instance, and notably women, are never flirts; they never pay attention to the other sex for the pleasant excitement of it. Any attention which a man may offer, he considers of a matrimonial nature. Any attention received by a woman having Conjugal Love strongest, will think of it in the light of matrimony, and if she can not reconcile herself to the idea of marrying the man, she will have very little to do with him in the way of sociability. Such people never "court for fun"; they are generally sober and earnest about it, and to them attention means matrimony; and when experience and acquaintance seem to indicate that they are not so well suited to each other as they ought to be, they drop the subject so as not to be the occasion of establish-



Fig. 2.—SMALL SOCIAL ORGANS.

ing any expectations which may not be realized. We see ladies who will hardly treat a gentleman with ordinary respect,

certainly will never permit the remotest cordiality and freedom unless she has her mind made up that matrimony might be, if offered, feasible.

There is many a gentleman who seems quite distant and dignified among ladies, as if he hardly liked their society; he acts, in fact, among ladies as if he were engaged to some one who is absent, or like a man who is married and feels that general courtesy is all that is permissible; but let that young man find one whom he thinks he may marry, and his Conjugal affection will be awakened, and there will be an intimate, confidential sympathy established which will lead everybody to suppose that they are already engaged. To such a person courtesy means love, and love indicates the lifelong matrimonial bond.

By this it will be seen that ladies or gentlemen of culture, and reputation, and refinement, may sometimes seem peculiar, singular, and capricious in their conduct toward people of excellent standing and character. Where Conjugal Love is not well developed, matrimony is based upon some of the other faculties; it may be upon Friendship, as we have said, as the leading principle in the attraction; it may be on Amativeness mainly, and then their continued harmonious relations are likely to be doubtful. People who are attracted by passion are not likely to continue in harmonious relations unless they are so equally mated in that respect that the bonds shall be thereby made continuous. If one should be less developed in this respect or have less constitutional energy to sustain it, and the love were to falter, disagreement, disgust, separation, or divorce might be the result; but if Conjugal Love and Friendship were equally strong, the bonds of union might be unbroken, though one strand, Amativeness, of the threefold cord were weak, or did not work in harmony with the others.

There is one more organ in this group, namely, Inhabitiveness. If the reader will think for a moment, one or more persons will be recalled whose attachment

to land and house, and home, and home affairs, seems to be the strong, central element in their social life. When they receive company, they will show to that company the rooms, the conveniences, the beautiful outlook this way and the other, they will show the garden and land, the spring, the bird-house, the orchard, and will seem to worship all that belongs to the home. Like a young bird that has just built her first nest, it is looked upon as a marvel and a paradise. Such a mother or father will inspire their children with the fondest regard for the home, the land, the roof, everything that constitutes the place called home; and memory, when they separate, will come back to the old hearth-stone, the "old oaken bucket," the "old arm-chair," the old shade-tree, and thus it seems to be the golden censer in which the incense of love is contained, and without which it would be in danger of being dissipated. Patriotism is the name for this feeling when it widens sufficiently to take in one's whole native land, his own home being, of course, the one bright, central point of it. It is beautiful and wonderfully useful to have this faculty strong. Such men when they have closed their store, or shut down their mill, or unhitched their team, will go as straight home to the house and the family, as the horse would go to his stall if unhitched a mile from it. Add to this Parental Love, Conjugal Love, Friendship, Amativeness, and we have the entire concentrated force of all that is social in our being. If this home-feeling be weak, men and women like to "go somewhere"; women will make many calls; like to make little trips to neighboring towns to see anybody they can think of as an excuse for shaking off the tedium of staying in one place. A man will go to his club or lodge, or to a bar-room, or the bowling-alley, not that he loves his wife and children less than many others, but the home seems to him a kind of pen, prison-house, enclosure, restraint, and lacks elbow-room and freedom; he might take his wife and children with him to make excursions that

were delightful and unexceptionable. The German takes his *vrau* and the children to the lager-beer saloon; they sit around the table and sip their lager in company, and even the baby in arms is given a taste of it, and they go home together. In such a case it would be presumed that the family loved each other better than they loved the place where they lived; but the society and the lager take them away; their love and fraternity with each other take and keep them together, in going, remaining, and returning. Commend us to the men who have no fugitive entertainments to which the wife and children might not be introduced and become participants.

The love of home, Inhabitiveness, is also indicated by the manner in which men and women are willing to spend money. Those in whom Inhabitiveness is predominant and the other social organs well developed, will earn money with pleasure, and pay it out liberally in whatever is calculated to make the home rich, pleasant, and valuable. In New England, particularly, the house is the great thought; money is expended for that without stint, and there seems to be a pride in having a good house well furnished and the home made attractive. We have never been in any region where the houses were so good, so nicely kept, and so attractive as those of New England, or their descendants West, in proportion to the ability of the families to expend money. In the German settlements through New York, New Jersey, and Pennsylvania, the people are great admirers of stock, and the barns are generally a great deal more costly and elaborate than the houses. We have seen many a farm in Pennsylvania worth from a hundred to two hundred and fifty dollars an acre, with a barn perhaps costing from six to twelve thousand dollars, and the house roomy enough, to be sure, but in which a man in New England would dislike to live, though his income were not more than a dollar and a half a day. We have seen men, however, in New England, who would spend earnings

freely on horses and vehicles for driving, dogs, guns, boats, fishing-tackle, and the like, who would permit broken windows to be mended with paper, or old hats, and doors to drag and not latch, the roof leaky, and everything indicating a kind of squalor inside.

Women sometimes worship their houses, and are more anxious to have a coat of paint, or new carpet, or nice curtains than they are to have good clothing or luscious food; others are the reverse, and dress themselves and their children finely, and eat sumptuously, but leave the house with shabby appointments, and seem to care but little about the general appearance.

The people in the South are less inclined to spend their money on houses than on lands and horses and hospitality; yet they have that kind of Inhabitiveness which gives an intense patriotism; they think a great deal of "My State," "My section," "The South," and we commend the spirit. Perhaps the New Englander is equally proud of his State, but specially desirous to have his house as good as he can afford it, and often considerably better. A Southerner's house or a Pennsylvanian's farm-house are not much of a criterion by which to judge of their wealth. The New Englander's house is sometimes all the property the man is worth, and he has to work at a trade or on a salary to eke out an economical existence; but his door-yard, fence, green blinds, white house, must be kept in shining array, and he may not have a hundred dollars to his name, after his incidental debts are squared up, except the house.

NELSON SIZER.

A WORD.—If you don't like any one's nose, or object to any one's chin, don't put your feelings into words. If any one's manners don't please you remember your own. People are not all made to suit one taste; recollect that. Take things as you find them, unless you can alter them. Even a dinner, after it is swallowed, cannot be made any better.



JAMES R. DODGE,

STATISTICIAN OF THE DEPARTMENT OF AGRICULTURE.

THIS portrait indicates a man of strong vitality, as if he had descended from a long-lived family, and was destined to carry himself strongly to a good old age. We judge that he partakes more of his mother's than of his father's nature and characteristics; that he is remarkable for his ability to gather knowledge, and to make himself master of details. If he were educated to medicine, for instance, he would be likely to attain to eminence, especially as a teacher in that field. He talks to the point, carries his knowledge

in his head, and is able to recall it when he is required to use it. He should be known for exact knowledge, for statistical ability. If he were a writer for the press he would wield a prolific pen; his style would be historical; every point would be nailed with facts, and he would have less occasion than most men to refer to books. He would carry his knowledge in his head; once acquired, it is not lost, but his memory holds it ready for use.

His constructive talent is ample. If he

were called to practice anatomy and surgery, or to any other pursuit requiring mechanical knowledge and talent, he would secure success. He enjoys music, and if he had been educated in that direction, would show superior excellence as a performer. He has financial capacity, would manage a complicated business, and take care of the monetary phases of it soundly and well.

He has force of character, which gives him the ability to meet and master difficulty and opposition, to conquer obstacles and override impediments. He is cautious; has policy, prudence, and a judicious method of carrying himself and handling subjects. He is firm, determined, capable of managing people and exerting an influence. If he were a public speaker he would usually obtain the favor of his audiences, because he is naturally very concise and practical, if not fluent. He has a great deal of natural magnetism; people in his presence feel mellow and malleable.

He reads strangers well, and understands how to manipulate sentiment so that people of diverse characteristics will find in him a common bond of union, and being so well understood by him, he can adapt himself to them without difficulty. He has the intuition that not only comprehends strangers, but combines and organizes facts and thoughts and opinions without hesitation or delay.

He ought to be known for sociability, strong affection, power to understand and mould people by making them feel comfortable. Those who know him dislike to deny him any favor that he may require. When among strangers, they show the disposition to conform to his wishes; if he has a large frame, and considerable weight of body, he carries with

him an uncommon amount of dynamic power in a mental sense.

He is capable of attending to affairs by bringing everything that is within range and reach under contribution to minister to his success. If he were the presiding officer in a deliberative body, or a teacher, he would attend to everything that belonged to the position, and carry the whole subject matter in his head, and would seldom have his decisions appealed from successfully.

As he resembles his mother, he ought to associate matrimonially with a woman who resembles her father, who has a square, high forehead, and who is proud, firm, ambitious, determined, energetic, and positive.*

The subject of the foregoing remarks is a gentleman occupying a position that is one of the most important in its relative bearings upon the chief industry of the American people—agriculture. This position he has filled for twenty years, and as statistician of the Bureau of Agriculture at Washington, it can be said with truth that no man in that department performs more useful work.

He was born in New Hampshire, and after obtaining an education he went South, remaining in Mississippi five years, where he taught school and wrote for the press, meanwhile closely studying Southern agriculture. The next five years were spent in newspaper work in Nashua, N. H., and the next seven years in Ohio, where he was editor on the *American Ruralist* at Springfield, and the *Daily Telegram*, afterward merged into the *Springfield Republic*. In the long session of 1861-2, Mr. Dodge was Senate reporter for the *Republican* and the old *National Intelligencer*.

When the Department of Agriculture

* The phrenological notes were made from a portrait of Mr. Dodge, and written out before the examiner was informed as to the name or history of his subject.

was organized in 1862, he was engaged in its service, and for years prepared the reports that were published by the press throughout the country. Through this semi-literary connection his special fitness for the work of the department became known, and in 1868 he was appointed to the charge of the statistical division, but still remained editor of the Annual Reports. He has occupied this place ever since, with the exception of three years in special statistical service of the Treasury and Interior Departments. In the latter he was special agent of the tenth census for the collection of statistics of agriculture. He returned to the Department of Agriculture in 1881.

For fifteen years he wrote the larger part of all original matter prepared for publication in the department, and revised and edited all its publications. In 1873 he made a report of the "Sheep and Wool of the World," being one of the Vienna Exhibition reports.

Some idea of the responsibility attached to the place of Mr. Dodge may be inferred from a statement made not long since in the *National Farmer* to this effect:

"The duties of this office are as wide as the facts of agriculture, and the processes and practices which they illustrate, and not merely confined to current crop reporting. That feature involves an organization of two thousand reporters, each representing a county, with about six thousand assistants. Returns are made on the first day of each month, each covering the producing area of a county, and the acreages deduced are modified in accordance with the respective crop areas and capacity for production of the counties. It will be readily seen that the average of a thousand reports, each of which represents only the crop of an individual, as at the best the extent of his personal observation, is unreliable. The acreage which each report covers is the most important element in the calculation.

"Besides these correspondents there are State agents, charged with supplementing and perfecting the work of cor-

respondents; and recently a statistical agent in London has taken the European field to report upon prospects and results of such products as feel most the competition of American products. The public interest and confidence in the work of this division is rapidly increasing. The accuracy of last season's estimates of corn, wheat, and cotton have especially contributed to this result."

DOGS AND HUMANS.—A few weeks ago there was a great "bench" or dog show in New York, and physiognomists who were drawn there could not have avoided mental comparisons with individuals near by who were too much interested in the terriers, bulls, hounds, poodles, and other classes of dogs to notice their side glances. One's reflection might be supposed to have been after this fashion:

There is a bull-dog—that man in the brown suit yonder, with bandy legs and heavy shoulders. His small eyes closed under the brows, the smooth bullet forehead, the heavy jaw and snub nose—all are essentially bull-dog. Then there's a mastiff, with the double-bass voice and the square-hanging jaw; and by him the shabby-looking turnspit, with his ear out at all sides, and his eye drawn up to its roots; and there the greyhound, lean of rib and sharp of face. Down by that stand is a terrier, with a snarl in his voice and a kind of restlessness in his eye, as if mentally worrying a rat. See that tyke, all beard and mustache and glossy curls, with a plaintive expression of countenance and an exceedingly meek demeanor; and with him a noble old Newfoundland dog, perhaps a brave old soldier, who is chivalrous to women and gentle to children, and who repels petty annoyances with a grand patience that is veritably heroic.

Reader, if you know a Newfoundland-dog-man, cherish him; stupid as he probably may be, he is worth your love. But be watchful of the terrier—especially

the snarling, fretful little bull—and more especially look out for the spitz-beauty : as he is he's capricious and malign suddenly giving you a nip when least ex-

pected ; he's a bad dog to keep in hot weather.

A dog show is a good place to study character—in its animal relations. D.

A FEW OBSERVATIONS.

FROM youth to age we wonder
Why some are given thunder
And lightning, mud, and rain,
While others get the sunshine,
And flowers, and cake, and wine,
While most of 'em are not a whit better than we
are, and some
Are as ugly as Cain.

It's just as true as preaching,
That some of the most meeching
And meanest folks are blest
With houses, land, and money,
And fed on cream and honey,
While some folks enough sight better have to live
on rye-and-indian,
And never get a rest.

Upon my word its funny
How some folks get the money,
While others go without.
Perhaps your own twin-brother,
Or if not him, another,
Will rake in all the boodle and buy a house and
lot, before
You know what he's about.

You see they know, by thunder,
Enough to stand from under,
And dodge the mud and rain.
That way, we might have money,
And live on cream and honey,
And be just as fat and impudent, and put on airs ;
take our brother's notes ; put things out of reach ;
be called self-made, but
It goes against the grain.

MRS. E. M. AMES.

SICILY AND ITS ANCIENT MEMORIES.

SICILY was called the Trinacria by the Greek navigators, from its resemblance to a triangle in form. It is separated from the mainland of Italy by the Straits of Messina, and has an area of 10,000 square miles. It is a land of ruins destroyed by war, despotism, pestilence and famine, earthquakes and volcanic eruptions, until the little ill-fated island with its bare mountains and desolated valleys seems to echo everywhere with the sounds of a vanished past. The most northerly part is traversed by a continuation of the Apennine range, called the Neptunian Mountains ; and at some distance south, near the eastern coast, is Mt. *Ætna*. It is the largest volcano of Europe, and has a height of 10,874 feet above the sea. The base has a circumference of ninety miles, and the slope from the top to the bottom of the mountain cone is about thirty miles in length. The top of the mountain is generally covered with snow. The lower portion from the

base, fifteen miles upward, is cultivated and populated, abounding in vineyards and olive grounds. Vineyards thrive in the lava of Mt. *Ætna*. The whole district is thickly inhabited. It is delightful to walk through the villas and down the narrow lanes that separate the vineyards. Here may be seen the peasant girls of the country with baskets on their heads filled with grapes—a happy-looking set of beings, with merry voices rippling in laughter or ringing in song. The Sicilians are true children of their native land—as sunny in disposition as one of their own sunny days ; intense, fiery, and as impetuous as if within them burned a hidden volcanic power sometimes overleaping reason and order.

Two races, quite distinct, now inhabit the island. In the north may be found the Italian race, but it is not of pure descent from the ancient people—far from it ; in the south the African-Saracenic declares itself by the swarthy skin and

salient features. The student of ethnology may spend a winter on the island profitably in observation among the people. Catania, near the base of *Ætna*, is one of the most beautiful cities of Italy. Although it has suffered from the eruptions of *Ætna*, many of its buildings have been erected of the very lava which had destroyed previous edifices. Many a scene in Latin history rises before us as we gaze

amphitheatre, tombs, marble quarries, and catacombs. In Syracuse one can roam through miles of ancient catacombs and subterranean passages. The amphitheatre is visited by admiring travellers.

The Ear of Dionysius is one of the few things worth seeing and remembering. It is a vast excavation in solid rock, where, it is said, Dionysius the Second imprisoned his victims, and listened to their groans



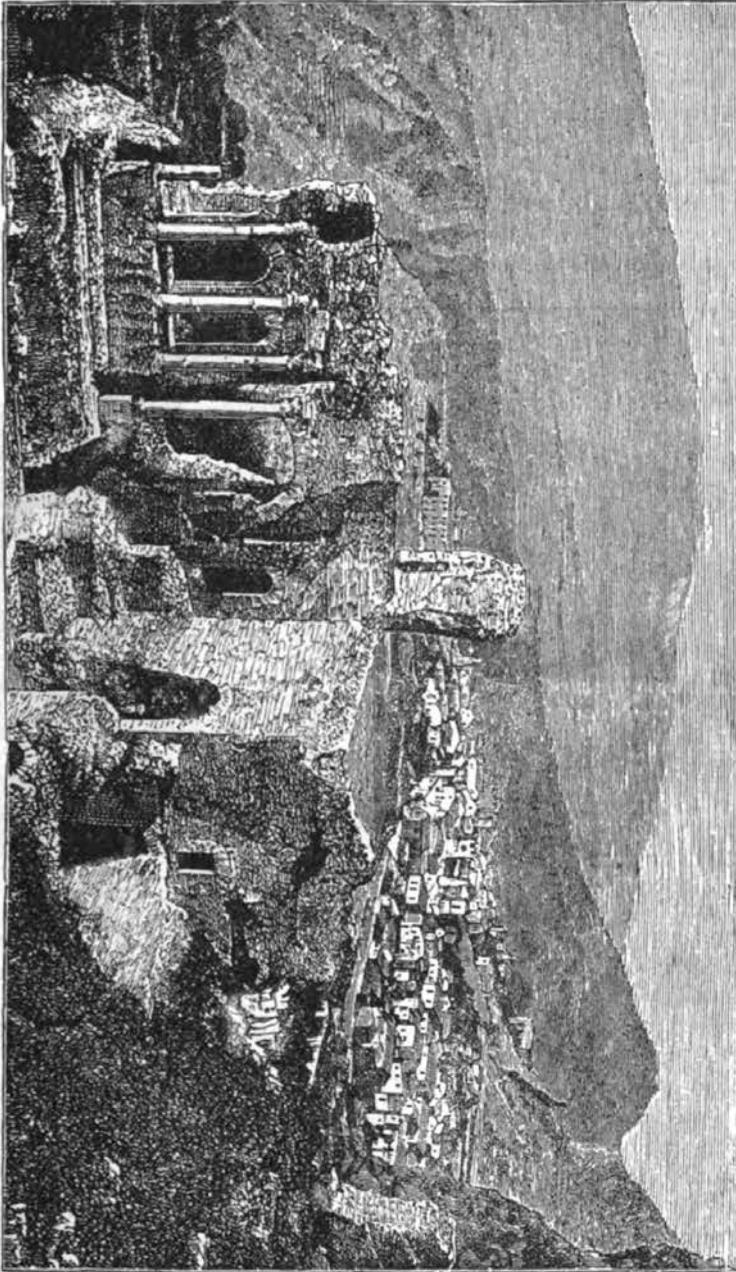
PEOPLE OF SICILY.

upon these cities with their ancient ruins. A cathedral at Syracuse is built in part from the remains of a temple of Minerva, and at Trapani, the ancient Trepanum, we remember Anchises and *Æneas*. The Syracuse of to-day, encircled by its melancholy ruins, its harbor choked with sand, and breathing poison from the surrounding swamps, is a far different city from that of the past; but the Syracusan prides himself on his ancestry, and proudly points out the ancient fortifications, the

as a sort of pastime. The reverberation in this cavern is so great that the slightest sound, even the tearing of a piece of paper, produces a loud report. There are ruins of human life in Syracuse as well as ruined walls—beggars who beggar description—horrible objects from whom we turn away in shuddering pity; little children taught pauperism from earliest infancy, and in whom the child-life is still fresh. Begging has been, until quite recently, the principal employment of whole dis-

tricts of children; bareheaded and barefooted in picturesque rags they run by the tourist's carriage, crying: "Datemi qualche cosa" (give me something) A

It is a relief to turn now and then from ruined walls and human deformities, while we drive in the sunset under those beautiful skies, and watch the soft tints of the



GREEK THEATRE AT TAORMINA.

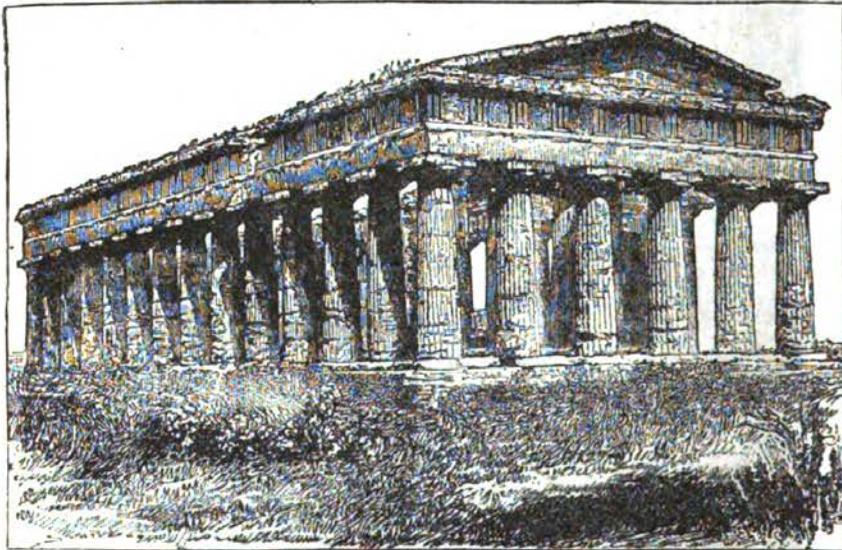
traveller once accosted a dirty little fellow with the words: "Have you ever washed yourself?" To which the young son of Italy replied, in surprise: "Never, sir. Never!"

distant mountains, breathing in the delicious fresh air as we fly along the smooth sea-shore roads, forgetting the scenes that have been witnessed by the setting sun in other days of convulsions of nature

and of human cruelty. In their wars and pastimes the old Sicilians illustrated the development of their basilar organs. The coast and inland scenery is charming, while in thick profusion grow wild-flowers of great beauty.

A picturesque old town is that of Taormina, in its changing outline and weird scenic effect, surrounded by towering peaks of rock; Mt. Ætna blue and clear in the distance; the bay lying calm and pellucid as a mirror reflecting the surrounding scenery. Taormina was once called Taurominum, because it was built

for building purposes. The Temple of Neptune, at Paestum, is very impressive; it seems to have been erected for the gods of Homer. Thirty-six Doric columns lift themselves from the earth as if growing like a lily. Lighted up by the gold of Southern sunset the scene is enchanting. One who has visited this island advises that if a trip to Sicily is intended, the passage should be taken to Palermo rather than to Messina, in order to enjoy the entrance into that lovely bay, with its glittering city and vast semicircle of rocky mountains inclosing the fertile



TEMPLE OF NEPTUNE AT PAESTUM.

on the summit of Mt. Taurus. It was founded by Andromaches, father of the historian Timæus, with the inhabitants of Naxos, after the tyrant Dionysius had destroyed the latter city. Taormina has suffered in war, especially in the times of the Saracens, who destroyed it about the year 893. Earthquakes have also brought the once beautiful city low. The suburbs are celebrated for their antiquities, especially for the ruins of its theatre, which is the most notable of all, and is said to be one of the finest specimens of architecture for scenic effect in existence. It could accommodate 25,000 persons. Many of the architectural ornaments have been removed by the inhabitants, and used

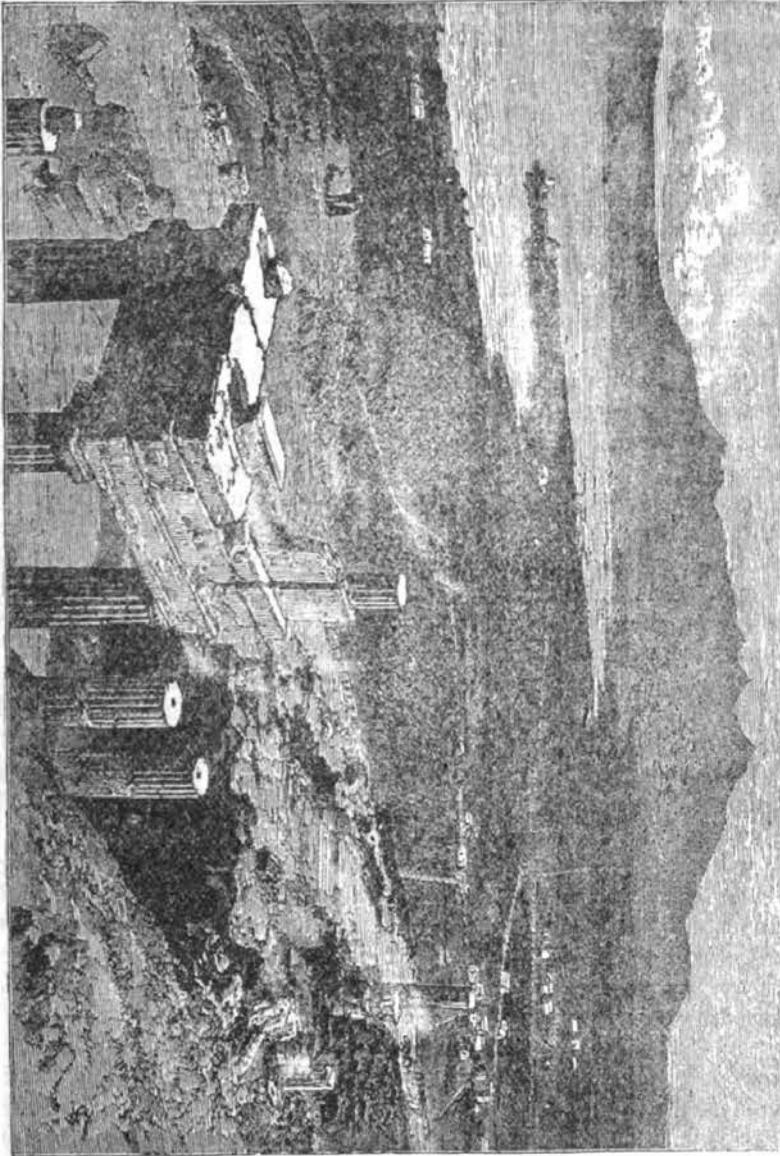
plain of some 2,500 metres in circumference, called by the Sicilians the Corica d'Oro, or Golden Shell. As we thus enter the Monte Pellegrino, on the right, rising to close upon 2,000 feet, presents a majestic appearance. The day's excursion to Solunto is one grand object in visiting Palermo (of the main features of which the engraving gives some idea). The few columns and other fragments add greatly to the prospect, and show to the instructed observer how well the Greeks understood the relation of nature to art. When visiting this scene one will find it an easy climb to the top of the hill, from which a most satisfying view of Palermo is obtained.

How changed are all these scenes of pride and grandeur! Huts now where once great temples reared their walls, and beggars to-day where once were silken robes and banquets of joy and wealth. Old Ætna towering far above,

penetrate the dim vista of centuries, nor see beneath thy ruins.

We walk amid the desolate temples, treading on the green grass and wild-flowers at every step, thinking of the vanity of all human greatness, and look-

RUINS AND BAY OF SOLUNTO.



with your bare and grizzled cone, alone, desolate, and mysterious, mighty in your awful grandeur, where are the castles and lofty walls that once decorated your valleys below, and were to you but as the plaything of an hour; where are the old Roman and Saracen heroes, the conquered and the conqueror? We can not

ing from the ruins to the unchanging sky, we can not but exclaim :

" Still th' unbroken columns stand
 Since those Doric shafts first stood,
 A thousand years, with storm and blood,
 Have fiercely swept across the land ;
 But like the sea, to which they're vowed,
 On those marble summits free,
 Calmly breathes Eternity."

SARA KEABLES HUNT.

A CRANIOLOGIST'S PARADISE.

A VISIT TO THE CHURCH OF ST. URSULA IN COLOGNE.

THE many repositories of human remains existing in various places on the Continent present a most interesting field for the researches of the scientific, and to none a richer one than to the phrenologist. The pious labors of the monks of the Middle, and even earlier Ages, in preserving relics of the departed in their numerous cloisters and institutions, and which are still kept with a superstitious veneration in churches and cathedrals by their successors, are now being made available. In such collections Carl Vogt and other distinguished researchers have directed the phreno-anthropologist to an important mission—the solution of the problem of the character of unrecorded or geological peoples. To our race the ancient European remains are, of course, the most valuable, as from them are we, to a great extent, descended, and from them we can tell almost the exact mass of our intellectual development. In this respect the collections of the Catacombs of Paris and Rome may indeed be considered rare treasures. The former has already been examined by Vogt, and astonishing proofs for the truth of the historical development of the brain found. Another collection, probably the most interesting of any on the whole Continent, more especially because of the legends and history connected with it, is in the curious old church at Cologne dedicated to Saint Ursula and the 11,000 virgins—which, having visited, we introduce to our readers as “A Craniologist’s Paradise,”—though our description may not claim to be in every sense a scientific investigation.

The title is not inapplicable, though the scene which is presented to the eye on entering the gloomy building is rather more calculated to conjure up visions other than paradisaical. It was somewhat late in the afternoon as I entered the edifice of skulls. Mass had just been

celebrated, and, though a week-day, I met many people coming away who appeared perfectly unconcerned at the many death-relics around them. I stood on one side of a kind of lobby, in order to allow the crowd of worshippers—the poor, the lame, the halt—to pass, when my gaze was riveted upon the walls around me. In iron-grated compartments a vast number of skulls were seen through the dust-covered glass panes which enclosed them, while nearly one entire wall, instead of being plastered with ordinary cement, was completely covered with a sort of inlaid work of human bones arranged in a most curious manner. An old priest-like guide came and offered his services in going through the church, and led me into the centre aisle, where were other cage-like compartments let into the masonry also containing skulls, one appearing between each grating. These cases, numbering about twenty, almost entirely surrounded the body of the church, each containing about twenty-four skulls. In two opposite side-aisles were four larger cases containing each one hundred and twenty skulls. On each side of the choir were five cases, and still others stood in different parts of the church. Besides these were colossal stone urns, one of which measured fifteen feet long by six broad and seven or eight feet high, filled completely with human bones. On the top of one of these were placed the statues of two early bishops of the church like guardians over the sacred relics. Our guide was full of the history of the place, mixing legend and fact and history at every point, and, after showing us an incalculable number of skulls and bones, said that sacred remains were also buried in great quantity under the very pavement.

“How many skulls do you suppose are contained in the church?” I asked.

“At least eighteen hundred,” he replied, “but the bishops of the church

have presented many hundreds to other churches. Many have been sent into Switzerland, France, England, and also America, there to be preserved as mementoes of the saints."

"The number of skulls," I said, "would appear to vouch for the truth of the legend connected with St. Ursula. Do you really believe the truth of it, and that these are the skulls of St. Ursula and her 11,000 virgins?"

"Certainly," he answered, "and I will give you a true account of them."

With this he handed me a neat little pamphlet, written by a priest of the church, containing the legend, or rather legends—for there are many versions—and which I can not do better than communicate here before we proceed further. We give the two chief ones in the order in which we find them.

THE LEGEND OF ST. URSULA.

"St. Ursula, according to the legend of Surius (written before 1111), was born in Great Britain, of Christian parents. King Dionetus Maurus was her father and Daria was her mother. Ursula was both virtuous and beautiful; she drew upon herself the admiring gaze of all the surrounding princes; and Agrippinus, a neighboring king, would fain secure her for his son Conanus. But Ursula had in the tenderest years of her maidenhood affianced herself to God, and she therefore opposed the proffered marriage with the heathen Conanus, rightly fearing that the union would stain the purity of her faith and hinder her in the fulfilment of her religious duties. She was firmly determined not to marry him, and should misfortune thereby come upon her father's house and people, the wrath of the haughty and powerful King Agrippinus would not influence her. But, in the midst of her anxiety, a vision came to her aid in a dream, in consequence of which she declared her willingness to marry, with the condition, however, that three years should first elapse; that she should be allowed to choose ten compan-

ions from among the most honorably descended maidens of the land, and that she herself and each of her ten selected companions should be accompanied by a retinue of a thousand female companions, for whom a flotilla of eleven three-oared ships should be placed at disposal.

"When the flotilla was ready, the pilgrims started from their homes, and were engaged for some time, to the great amusement of the court and people, in pleasure excursions along the English coast. But Ursula did not thereby neglect to exhort her followers to the service of Christ. Meanwhile, as the time appointed for her marriage with Conanus was fast approaching, there arose (in answer to the fervent prayers of the young women) a violent storm, which drove the flotilla upon the coast of Holland. Ursula now appears to have determined to go to Rome, and the pilgrims were fortunately enabled to commence their journey up the Rhine. From Cologne to Basle the journey was prosperous; everywhere they were kindly received, and, in the latter city, upon the invitation of Bishop Pantalus, they left their ships and were conducted by him across the Alps, and at last reached Rome in safety. Here they visited the graves of the martyrs. Many who had not yet been received into the bosom of the holy Church, now, seized with powerful emotion, longed after Christian instruction and holy baptism.

"Inspired with the consolations of Christianity, the virgins now left Rome, accompanied by Cyriacus and many others. After reaching Basle, the company descended the valley of the Rhine as far as Mayence. Here they found Conanus, who had hastened in pursuit of his bride, having followed the example of the virgins by embracing Christianity and being baptized by Pantalus, and receiving the name of Etherius. The entire band now descended the river to Cologne, and, as they were about to land, they were fallen upon by barbarian hordes, and Ursula, who refused to break her vows at the bidding of the Huns, was pierced by an

arrow, and all her companions horribly mutilated."

Such is one tradition connected with the skulls. The date of this occurrence is not at all defined. Some place it in the year 237, others 383, and more in 451. Another report, resting upon the account of Galfried of Monmouth, who wrote a history of Britain in 1130, is said to have been discovered in the Vatican in the middle of the twelfth century, and was believed to contain the original Ursula history. It is contained in the brevier of the Benedictines:

"After the time of the Emperor Gratian, a Christian and son of the Emperor Valentinian, who succeeded his father from 378 to 383, and was then murdered by Andragathio, Maximus' general; and after Flavius Clementius Maximus, commander of the Roman legion stationed in Great Britain, had been proclaimed emperor by the rebellious soldiery, and had usurped the chief control, he sent troops to Gallia (Gaul), where the people had been enemies of Gratian, but where they found a friendly reception. It came to pass that Maximus held this dominion. The colonists of the country were then driven off, and the fruitful lands divided among the soldiers who had been brought over from Great Britain. Regulus, commander of the British, by the advice of Conanus, a chief of the army, sent an ambassador to England with the mission to demand as many young maidens as would be necessary to marry with the military colony. The inhabitants of Great Britain received the request favorably; they saw that by consenting they would gain the good-will of the Emperor, and that their daughters were likely to fare well with the soldiers now made rich by gifts of land. So a number of the young maidens, corresponding to the number of the military colony, were selected.

"The highest among them was Ursula, daughter of Dionetus, King of Cornubia (Cornwall). She was engaged to marry Conanus, a chief of the British cohorts in the service of Maximus. The gather-

ing-place of the maidens was London, where they were brought against their will upon ships, which, as they left the haven, were steered toward the land of the Armoricans (the ancient name of the Gallic provinces), but were driven upon the German coast. The Huns, whom the Emperor Gratian had called to his aid against Maximus, had now possessed themselves of this part of the country. The term, Huns, here is not astonishing, for all barbarous people who broke into the circle of the Roman sphere received the by-name of 'Huns,' as did the Alanis, the Ambrons, and the Picts; although the name 'Huns' is only applicable to those who about the year 372 left the Sea of Azov, overran Hungary, and first pressed forward toward the Rhine under their leader, Attila, about the year 451. These barbarous hordes fell upon the band led by Ursula, which, in order to preserve their virgin purity—the most precious treasure of their heart—showed undaunted courage. All were murdered. The inhabitants of Cologne interred the corpses of the holy virgins amid the greatest honors. The Christian world celebrates the memory of their laudable conflict with ever-renewed splendor on the 21st of October. One of the virgins, Cordula, seized with fear at the nearness of death, hid herself in the ship's hold, but full of regret, and encouraged by the heroic example of her fellow-pilgrims, bid defiance to death, and on the following morning was also murdered."

Which of these legends is the true one, we can not say. It is merely our intention to state them as we find them. My companion was evidently of the firm belief that the former contained more evidences of truth; at any rate, it better suits the tendencies of saint-worship introduced by the early monks throughout Europe. But we will leave them for the present and follow our old guide, who, after pointing out the various relics in different parts of the church, finally halted before a most beautiful marble monument a little to one side of the centre aisle. This was St. Ursula's monument. It is

of exquisite workmanship; the base of black marble, with white slabs on the side, while on the top rests the form, cut in pure white marble, of the saint herself. She is clothed in queenly robes, fastened by a delicate clasp upon a slightly elevated breast, while her hands are placed in a gentle attitude of repose. The face is delicately chiselled and idealistic. A mass of wavy hair falls upon the cushion on which her form reposes, a crown is placed upon her head, while at her feet sits a white dove—emblem of innocence. The inscription is:

Sepulchrum St. Ursulæ,
Indicio columbæ detectum.

Joannes Crane Sac. Cæs. Maj. Consilarii Imp.
Aulicus et Maria Verena Hegemileren con-
juges hoc vivo marmore includi fecerunt Ao.
1659.

The name of the artist is also engraved, J. F. W. Lentz Crane, it appears, was for a long time an ambassador of the Emperor in Cologne, and he and his wife became distinguished for their many good deeds. He was born in the Protestant faith, but afterward joined the Roman Catholics and became zealous in their behalf. The dove sitting at the feet of the saint has also its history, commemorating, it is said, the appearance of a white dove in the church and its alighting upon the head of Bishop Cunibert (626-668) while he was celebrating mass, and afterward flying around the church, and at last resting upon one of the graves of the virgins. This spot is now covered with the beautiful monument to St. Ursula, as the bird was then regarded a heaven-sent messenger to point out the exact part of the church in which she lay.

The same event is also recorded in a fresco in the choir and in other paintings. Indeed the latter are quite a feature, and the walls are almost encircled with them. Commencing with a series of old German paintings on slate (1224), and intended to represent the twelve apostles, that remind us of the present state of Abyssinian art, we pass in review a number which our guide tells us are "historical paintings, giving a true account of the life,

voyages, and death of the virgins." The first series, to the number of about twenty of these, extend around the choir, the closing scene of which is the martyrdom of Ursula, pierced by an arrow, as she stands erect in her boat. The most remarkable feature in a second series is the great size of the heads of all the sainted band in proportion to their bodies. Ursula's is a life-size statue placed beneath the organ; a queenly, ideal figure, with robe and crown, pierced in her bosom by an arrow, from the wound of which trickle drops of blood.

THE GOLDEN CHAMBER.

Leaving the body of the church, passing through a curious lobby, among immense stone urns or coffins, supposed to be filled with bones, we come to the climax of the whole collection—the treasures of the Golden Chamber. Amid this confusion of skulls, bones, urns, and relics, we begin to feel—or at least ought to—the "holy awe which is inspired by the place. . . . The voice of the past here raises itself powerfully and beats admonishingly upon the ear; even the cold, lifeless stone speaks to us and discloses its safe testimony of the deeds of antiquity." We are now fairly within the goal of our paradise—a room about the size of a large parlor, but lofty and paved with stone. The tinsel magnificence and death-like relics here brought together—many hundreds of skulls in rows in a high case covering an entire side of the room, on the opposite side gilded and silvered busts with other skulls, and an entire wall covered with inlaid work of human bones—form a surprising contrast to the many beautifully ornamented curiosities arranged on tables, and to which our guide first draws attention. To describe them all would require a moderate-sized pamphlet.

The largest shrine, of exquisite workmanship, church-like in shape, with forms of bows and arrows enamelled thereon, is said to contain the body of St. Ursula herself, upon which, however

we were not permitted to gaze. In a cylinder with crystal ornaments is contained, it is said, some of the blood of the virgins, together with a particle of the staff of Christ. In a similar case are particles of the garment and linen of St. Ursula, while close by is her right arm, now shrivelled and brown, in an unornamented glass cylinder. Her foot is contained in a beautiful little ivory case, on which are artistically carved events from the history of her life. The very arrow with which her breast was pierced by the wretched barbarians—the iron head of which is now nearly rusted off—and her hair-net are preserved in an ivory case of antique workmanship, while a mass of earth mixed with sainted blood is contained, like numerous other relics, in crystal-ornamented cases. All contain something supposed to have had a slight connection with the holy band—one article being thus entitled: "The ring of St. Ursula, on which is a still unknown writing, but in the highest degree probably the name of St. Ursula and Ethe-rius."

But the Golden Chamber is not alone devoted to relics relating to the Ursula band. Here are to be found sacredly preserved a few particles from the crown of thorns once worn by Christ. Here, too, is one of the pitchers that once did service at the marriage feast at Cana, in which water was turned into wine, the handle of which is wanting, but which, we are told, is still preserved in the Notre Dame at Paris! This article is of alabaster, and "a reliable eye-witness who went to Cana assures us (the proprietors of the curiosity) that there are only five of these vessels still in Cana, and this sixth, in the Golden Chamber, has the greatest resemblance to them." Here stands beside it a tooth that once did good service for St. Appolonia. But—how much to be regretted—we are told that the most curious and interesting articles were earlier given away or abstracted from the church. One of the pieces of silver, for which Judas betrayed his Master, was taken away by one of the

last Electors of Cologne, an irredeemable collector of coins. But the anger of St Ursula was invoked upon the sacrilegious wretch, and he was compelled to reimburse the treasury of the church to the extent of twenty thousand dollars, a poor recompense for such a treasure. Even as late as 1837, some one stole what represented a particle of the cross of Christ and a piece of the purple cloth worn by him in the house of Pilate.

THE SKULL OF ST. URSULA.

The greatest treasures of all are contained in the richly ornamented glass cases upon a table reached, throne-like, by ascending a few steps. These are a few of the skulls-elect, and have been more beautifully ornamented than any of the six hundred and twelve contained in the cases of the Golden Chamber. Turning to my guide I asked him to point out to me the skull of St. Ursula herself. I doubt very much whether the ancient monks, or even those of to-day, know the skull of a man from that of a woman, and I had almost imagined that I would find a masculine one palmed off as the true Ursula. But my preconceptions were false. Only a very small portion of her skull is preserved and encased in a diadem of highest worth. There is probably some truth in the legend after all, I thought, but I was happily disturbed in my thought by my old spiritual friend. "This is a part of the holy Ursula's skull," said he with becoming gravity, "the other parts are lost, but this is from the back part of her head"—and he placed his hand to his own in explanation. The only portion of the skull preserved is that which represents the region of Philo-progenitiveness, Conjugal Love, Inhabitiveness, and Friendship, tapering up and reaching a large development in the two latter organs.

The disappointment at not finding the whole of St. Ursula's skull was, however, somewhat lessened by the number of those of her companions and of priests and bishops once connected with the church or procured as relics from other

places. The most of these, however, are unknown in history, and a description of them would only prove tedious. I will enumerate merely a few. There is the skull of St. Etherius, bridegroom of St. Ursula; of St. Cordula; St. Jacobus, patriarch of Antioch and a martyr of the band of St. Ursula; of St. Pantalus, first bishop of Basle; St. Benedicta, a duchess and commander of a cohort of the saintly legion, who had the misfortune to have her skull split into two portions; St. Ursula the second, a niece of the real saint, on which some hair yet remains; St. Berthima, a negress; St. Aurelius, King of Sardinia; besides cardinals, archbishops, bishops, priests, dukes, and soldiers. In each of the one hundred and twenty gilded or silvered busts placed around the Golden Chamber is to be found one skull, many of these, it is said, being decorated with "precious stones." These busts appear to have been specially made for the purpose of containing the relics. The features represented on them are of one type, though some remarkable physiognomies of ecclesiastical persons are observable.

SIZE OF THE SKULLS OF THE SAINTS.

The large glass-fronted case, occupying an entire side of the room, contained the already mentioned six hundred and twelve. The lower part of each skull was covered with decayed red velvet, tastefully worked with beads (pearl), said to have been done by the nuns of a neighboring cloister some hundreds of years ago. This is not at all improbable, and doubtless it was a religiously imposed task to them. But I could not help thinking how much of their labor had probably been spent upon skulls of the "infidel Huns," as there were certainly many that had little similarity to the woman-type. To describe an individual among this mass, however, would be no criterion for the whole. I obtained permission to take down a few of the dusty relics, and took the opportunity of measuring them. The result was an average of less than $20\frac{1}{4}$ inches, with but little variation.

Some came below 20, and others reached $20\frac{1}{2}$ —only one going higher. An exact measurement, however, was very difficult owing to the velvet decoration of the skulls, allowance for which would reduce the above measurements about half an inch. The average then would be less than 20 inches. These measurements were not scientifically made, and the mere circumferential size gives no idea of the very marked flatness of the skulls. There were two, however, which greatly differed from the rest—St. Jacobus and St. Margaret. The latter struck my attention on account of its small size. It was under a glass case among the select, and beautifully decorated with velvet and "pearls of great price." Like the rest, it is very wide between the ears, bulging out at Caution and Destructiveness, and tapering off thence on all sides toward the forehead. I found its circumference, including the beads and decorations, $18\frac{1}{2}$ inches—certainly the smallest in the whole assembly. The skull of St. Jacobus, patriarch of Antioch, a martyr of the band, was just the opposite. His was narrow at the sides, with a tolerably high central ridge, and long—very long—when compared to the others, and showed a higher degree of intellectual development than any of the rest. This skull measured $21\frac{1}{2}$ inches—no others coming within three-quarters of an inch of that point. He, it appears, attended to the interment of many of the saints after their massacre, had the names of some engraved on soft stone monuments erected over their graves, but was himself shortly afterward beheaded.

The excessive size of the organ of Caution, as found in the majority of the skulls, would appear to harmonize with the generally accepted popular tradition in Cologne of a Hun massacre. One of the very oldest traditions plainly indicates that these people, under their leader, Attila, were the perpetrators of a massacre as they flew in great disorder toward the Rhine after the battle of Chalons in 451. The inhabitants, especially the women, fled in masses before the unbridled

hordes, and the Roman Catholic writers have made many endeavors to bring the appearance of St. Ursula and her train in Cologne to correspond with this time. Popular tradition has much in its favor, although the other legend can not be positively refuted. A street near to the church is called the *Hunnenrücken-strasse* (Huns' back street), where, it is supposed, the backs of the Huns were last seen as they went away.

We trust the time is not far distant when these relics shall be thoroughly examined by scientific phreno-ethnologists. Professor Owen is said to have detected the bones of animals among those that are kept in the church, but he certainly could not find other than human skulls.

"For how much will you sell a few of these skulls?" I asked of my friendly guide.

The old man asked me to repeat this question, overcome, I believe, by its apparent audacity.

"Will you sell me a few of these old skulls?" I remarked again. "I am much interested in the legend and your church, and would like to preserve them as mementoes of my visit."

The old priest drew back in astonishment.

"Sell them! Sell them! Why, sir, we can not—we dare not! Just let me read you our order, and which we dare not disobey: 'No one, whatever his

standing may be, even be he clothed in archbishop's robes, dare not sell the relics of the holy Ursula,—neither sell nor buy, under penalty of excommunication.' We never sell them," he repeated, "but the bishop of the church has the power to give them away."

Fearing that my mission to the bishop would not prove successful, I failed to prosecute the task. I now offered to pay my kind old guide for his trouble. His regular fee was about twenty-five cents. I offered him a trifle for himself, which, however, he firmly refused. I must have detained him for above an hour, as the shadows were already stealing into the old dismal walls. The Golden Chamber, which appeared so tinselly on my entrance, had assumed a cold and gloomy appearance, brightened only by the reflected gleam of the gilded busts in the twilight. We returned into the body of the church among its stone-cased relics and caged skulls. The old priest-guide reverently bowed as we passed under Ursula's form. I glanced up to her beautiful countenance, and once more wandered around the attractive objects. At last I bid my guide adieu, for we could no longer see distinctly—only the gray skulls through their dismal grating—and I breathed freer again when we emerged into the lighted streets and left behind St. Ursula, her saints, and the Golden Chamber.

J. P. J.

COMPULSORY EDUCATION AT LARGE.

OUR National Congress this year is not noted for its exceptional fecundity; but to us who are interested in the cause of promoting education, as a means of counteracting or overcoming evil, the bill introduced by the Senate, appropriating means for the aid and advancement of our public schools, was very gratifying.

The American people are, and have been for several generations, so completely taken up with the desire to accumulate wealth, that but little thought has been given by our law-makers to the enlight-

enment of our illiterate classes. It is true there have been some among them who have been even enthusiastic in their efforts in that direction, but they have in almost every instance failed to excite the same interest in others sufficiently to cause practical results to follow. It is distressing to realize that the years are so rapidly but surely slipping away and so little being done to promote the cause of national or compulsory education. To have lost a day was deemed a calamity by one of the noblest of men; and wher-

can measure the wrong of one lost year, of one full year of further delay to check the wide, wasting, and increasing evils of ignorance among our people?

Only recently I read in one of the leading newspapers, an editorial, vigorously declaiming against a slight increase of taxation advised by certain parties for the improvement of their public schools; and this seems to be the principal objection urged by many to national education, *i. e.*, that it will increase taxation. But even this popular and impressive objection can be overcome by simply using a part of the vast sums so lavishly expended every year, for the supporting, not educating, of three hundred thousand Indians, for the possible improvement of real and imaginary harbors and rivers, or for a navy that is safe only within the docks.

Our system of taxation is for the most part just, inasmuch as the revenue is raised almost wholly from our luxuries and vices. The amount expended yearly among us for alcoholic beverages and tobacco is over one billion of dollars. There are few who will say that this colossal amount is not worse than wasted. What a vast deal of good the interest on this sum at three per cent. per annum would do if applied to the education of our illiterate; and this is only one year's estimate. One who has not travelled through the Southern States can have but an indefinite or vague idea of the glaring need of schools in that portion of our country; and it is asking too much of our Southern brethren that they bear the entire burden of educating the great numbers of totally ignorant young people that the abolition of slavery has made citizens.

The colored class, when educated and enlightened, is not by far the worst class of citizens that we have. It is true the most revolting crimes frequently occur among them, but it is almost exclusively due to ignorance, while among those who have been blessed with mental and moral training, we find kind, generous hearts, happy and cheerful homes and peaceful citizens.

All the facts we see around us, all the comparisons we make with fairness, and all the results that are forced upon us, argue in favor of liberal education; while the principal or only valid objection raised against national education, is the expense attending it that would be necessary to make it a success. But we have shown that even this objection may be overcome to the satisfaction of the most economical by simply using a part of the means expended in vastly less important or beneficial directions.

Again to make national education a thorough success, it must be compulsory, and to this the ignorant themselves object. We do not like to think of *any* thing compulsory; but ignorance and sin *must* be controlled by wisdom and justice, the same as mind or spiritual powers must rule over inorganic matter. This is undoubtedly for the good of all, consequently it can not but be just and beneficial that we be taxed in our luxuries and bounties in order to enlighten the poor and ignorant, and also that the latter be required to take advantage of the opportunities afforded them. If the best way to overcome crime is by moral and mental training of the young, then it is just as equitable to foster *compulsory* education as it is to punish felony.

The parent who is willing and desirous that his children become enlightened, has a proper right to demand that his neighbor's offspring be not allowed to grow up in idleness and ignorance to contaminate the good effects of the instruction and learning acquired by his own. The opponents of obligatory schooling may contend that liberty of mind, body, and soul is an important factor in our democratic forms of government; but as we have above stated, if it be proper and right, as all will admit, to deprive law violators of their liberty, not only as a punishment to them, but as a necessary protection to society at large, then, on the same principle, it is just and reasonable to demand that they, if necessary, be compelled to undergo a certain amount of instruction.

This will bring the question of the

feasibility or desirability of our object to the point, *Does education repress or lessen crime?* It would seem that such a question would not yield an argument, if for no other reason than that no one could be found to take the negative; but one-sided as it seems, I have often heard it opposed. It is not necessary that it be shown that education of itself would entirely eradicate evil from the world; it is sufficient to show that mankind as a whole is benefited by it, and the first, and a very potent demonstrator in this direction, is that wherever it has been tested to any degree, in the same ratio has it been universally acknowledged a benefit that more than compensates for its requisite outlay of expense and labor. Again, if we go among the occupants of our prisons, we shall find very few who will attribute the cause of their position to too much mental culture; while on the other hand, though they may not realize that superior education would have placed them above temptations to which they have given way, they nevertheless point to the vices and indiscretions that ignorance fosters, as the source of their downfall.

Idleness is known and acknowledged to be a prime cause in the origin of evil, and who can estimate the vast amount of evil and crime that could be averted and prevented by taking the many children who are, by the inevitable results of natural laws, abandoned to the uncertainties of life, without parent or guardian, and placing them where they will receive adequate instruction and training, instead of permitting them to rove the streets and alleys of our cities in idleness and sin?

It is true, we hear occasionally of men who have risen high in the estimation of their fellows, from these very paths of life, but it is foolish for us not to think that the great majority grow up to be, if not professional criminals, promoters of evil through their moral ignorance and lack of training while young; among the "street arabs" of our cities, to steal is almost as fixed an impulse as to eat, and it is a natural sequence that a child,

even one of good original tendencies, will have its sentiments of honesty rendered obtuse when its whole period of growth is spent under such influences as it is when left entirely to its own resources among such associations.

Though the arborator can not raise an oak from a maple sprout, yet he can produce a handsome tree from the crooked twig.

There is no end to the theme of education, but the point we wish to emphasize is that private philanthropy is not able of itself fully to handle the great undertaking of educating the masses of our illiterate and poor, but that it must be assisted, and to a large degree, by the National Government. Our future progress and welfare as a nation, as well as the individual happiness of each and every citizen, requires it. It is a subject that lies away down underneath many of the prominent movements against vice and wickedness to-day, and resting on the foundation rock of human happiness, cries to the prohibitionist, the prison reformer, or the promulgator of virtue alike, saying: "Make me the tool of your efforts and I will overthrow them all."

CHAS. L. HYDE.

ECONOMY OF LIFE.—The true economy of human life adjusts expenditures to a moral scale of values. De Quincey pictures a woman sailing over the water, awakening out of sleep to find her necklace untied and one end hanging over the stream, while pearl after pearl drops from the string beyond her reach; when she clutches at one just falling, another drops beyond recovery. Our days drop one after another by our carelessness, like pearls from a string, as we sail the sea of life until we learn that the waste of time is a more serious loss than the extravagances against which there is such loud exclaim. The expenditure of a few dollars on taste is a small matter in comparison with the wasting of months and years by thousands who have every advantage society can offer, and exact every privilege it affords as a right.

FREDERICK H. FURNISS.

[Phrenological Analysis by L. N. Fowler.]

YOU have a very high degree of the nervous temperament, joined to a prominent amount of the motive, with only an average degree of the vital, and that somewhat sacrificed; consequently, you are noted for your activity, quickness, strength and your power of endurance. I find that you have a very strong social and domestic disposition, therefore are extravagantly fond of place—of home. Few would become more attached to a place than you. You are extravagantly



distinctness, and positiveness of mind; are also remarkable for your vigor and executive spirit, and desire to carry things through.

Your brain is rather large, which, connected with a predominance of the mental temperament, gives you more mental than physical power. Still you must have been remarkable for your physical

fond of children or anything that is young and dependent; of pets and animals, and delight in having them around. You could enjoy married life very highly if entered into properly.

You have a very great amount of individuality of character; are anxious to do for yourself, and rely on your own resources. You can not be a moderate mar-

in anything, and from a little child you have been remarkable for wanting to do things yourself; not because you are proud and haughty, but because of your great sense of liberty.

You have almost any amount of will-power and determination; hence, with your temperament, you are able to go through very severe trials. You have physical strength and endurance, and can so put forth effort as to use yourself entirely up before you give in.

Your moral brain indicates strong sympathies, great interest in the welfare of others. Your kindly sentiments favor the missionary feeling, and the disposition to live and labor for others. You are not superstitious or carried away with beliefs, but are interested in any reforms or progressions that result in happiness to others.

The most marked features of your character are connected with your intellect. You have very large perceptive faculties; are remarkable for your powers of observation, very quickly seeing whatever is going on around you. You "take stock" correctly of all that you see, and rarely forget what your eyes once rest upon; you have, indeed, a first-class scientific cast of mind which can be directed in the channel of a naturalist, a chemist, an explorer, or an inventor. You have a keen mechanical eye, and know how to put parts together accurately; can see that things are appropriate or fitted without being obliged to measure. As a surveyor you could judge as correctly of land, distances, etc., as though you were to measure. This would be particularly true if you were a mechanic in working by the eye. You are remarkable for your knowledge of distances, and for memory of the places that you have visited. Your sense

of order, management, and method is well marked, so that you are able to classify, and systematize with great correctness.

You have favorable talent for arithmetic and mathematics, especially in the frequent application of mathematical principles; could have excelled as an astronomer. Constructiveness being large, in its connection with the perceptive faculties gives you ability to apply principles correctly, adjust one mechanical movement or principle with another, so as to have everything harmonize and work easily and successfully.

You have an extravagant imagination; are very fond of everything beautiful, especially in nature. In fact, there is almost too much of the sense of the beautiful; it magnifies your ideas at times extravagantly.

You have excellent capacity in the way of analysis, discrimination, and criticism; are able to see minute differences in things, and are intuitive in discerning character and motives; you catch the spirit of others with whom you are. Your mind is so intuitive that you go directly at results without a process of reasoning; you know from the beginning how the end is coming out, and you are quick to see where there are defects, and how they can be remedied. Few individuals can carry more things in their mind, attend to a greater variety of business, and be interested in a greater number of things than yourself. Your greatest fault is that you overdo—attempt more than you should; hence, get too many irons in the fire, and thus, if not mentally embarrassed, there is a tendency to wear out your constitution prematurely.

You have a first-class organization for a mechanic, an artist, an author, or an inventor.

The foregoing is a brief mental portrait of a gentleman well known in Seneca County, N. Y., for enterprise, intellectual brightness, public spirit, and generous sentiment. A self-made man, in the common meaning of the term, he is now, when but on the sunny border of middle life, the possessor of fortune and of an honorable reputation. His parents emigrated from old Yorkshire, England, in 1825, and first settled far up in the northwest of New York, but subsequently removed to Waterloo, in Seneca County, where the elder Furniss was employed in the woolen mills of that town. Frederick H., the youngest of a family of six sons and four daughters, was born at Oriskany Falls, Oneida County, N. Y., in 1834, and when but a youth, worked for several years in the mills as wool-sorter. In 1852 he went to Cleveland, Ohio, and secured employment on the Cleveland and Pittsburgh Railroad as a brakeman. The same year he lost his leg above the knee by being run over by a freight train. He remained in the employ of the company for fifteen years afterward, holding many important positions. In 1858 he invented and patented what is now known as the Pullman sleeping-car, and disposed of the patent to Mr. Pullman. Naturally of a thoughtful, inventive turn of mind he has entered over twenty patents for useful inventions.

Mr. Furniss, now the possessor of an ample income, and not troubled by a craving for excessive wealth, resides in a leisurely manner at Waterloo; at once the student of nature and the friend of social improvement. He takes a deep interest, for example, in Indian archæology; has a fine collection of Aboriginal relics, and is one of the most prominent members of the Waterloo Literary and Historical Society. Mr. Furniss has been in the habit lately of spending his summers at Crystal Springs, N. Y., where he owns a very attractive woodland estate, which he has named "Fern Lodge." Originally a bit of forest, Mr. Furniss has improved and embellished it until the result is a

beautiful sylvan park. A visitor has thus described it:

"The lovely spot is a peninsula near the head-waters of Big Stream, that falls into the Seneca eight miles away. A rustic cottage, wrought by his own hands, furnished with every device of taste and skill, is the central figure. The inclosure is entered by a rustic bridge, which is only passable by his chosen guests. Along the circumfluent stream are plants and flowers and ferns and mimic villages. Every tree is a souvenir of the country's history, and bears the names of aboriginal dignitaries. A fine little craft of four men's burthen is afloat upon the stream. Upon the lawn, between the terrace and the water, is an Indian encampment. An old spinning-wheel and a splint-bottom chair are other attractions on the bottom-land. But I leave the inventory to say that even the wild birds and squirrels have become tame by constant companionship with the lord of this sylvan manor. I saw him call squirrels by name from out the tall trees and feed them upon his lap. The writer so far succeeded with one of the little athletes as to give him a nut from his hand, which he partially shucked upon his knee, and then deposited his treasure sixty feet high in a tall pine, and returning, chattered his gratitude at a cautious distance. This beautiful place the proprietor has christened Fern Lodge. The dewy freshness of morning through all the sultry day pervades the colonnaded bowers of Fern Lodge like a grateful incense."

Mr. Furniss is a bachelor, yet fond of social enjoyment, and especially fond of children. He opens the gates of his forest home in summer to companies of children, and delights in their appreciation of the beautiful things that nature and his judicious taste have accumulated there. Among the matters of public interest in which he is now interested is the erection of a monument to the memory of the celebrated Seneca chief, Red Jacket, who was born in the neighborhood of Waterloo. Mr. Furniss has pub-

lished several articles in behalf of this project, which have had the effect to awaken the attention generally of those interested in the Revolutionary history of

our country. He has also prepared a design for the monument that is pronounced by all who have seen it as highly appropriate in its symbolism and dignity. D.

HINTS TO MOTHERS ON EARLY CHILD-TRAINING.—NO. 2.

A CHILD does not know how to behave at the table without teaching any more than some grown people. We see ill-breeding in adults, why expect good behavior from children if they are not instructed? They can not learn entirely by observation. There is no greater annoyance than an ill-behaved child at the table, and it is the mother's fault in most cases. I remember a beautiful little boy, the child of a young and careless mother, who was a perfect terror at the table. Elsewhere he was pleasant and delightful, a little sunbeam of joy, winning love and admiration from all, until they saw him in the dining-room. There admiration turned to disgust, and the mother received the blame. On one occasion she fell sick, and was unable to leave her room for several days. A lady in the house took charge of the child during the interval. Before going to dinner she took the child upon her lap, and said: "Now, Eddie, you are a dear little boy, and most people love you until you go to the dining-room. There you behave so badly, make such a noise, and are so impolite, that you lose all the love that you have gained. Perhaps you don't know how to behave any better, and, so, because I love you, I am going to tell you what to do at the table. Go down-stairs with me and take your seat quietly, just as I do. Put your hands in your lap, not on the table. Don't speak until the waiter asks you what you will have, and then tell him, just as if you were a gentleman. When he brings it, you can begin to eat, just as others do. Look at me, see how I behave, and do as near like me as you can. I will watch to see if you act rightly. If you need anything ask for it quietly, and you shall have it just as soon as if you were grown up. If you do that

all will love you, for you are a dear little boy, only you have very bad table-manners. See now how nicely you can behave to-day." The little fellow comprehended what was required, and promised obedience; and what is more, kept his promise the whole time his mother was ill. He behaved like a little man, and won the admiration of all in the house; but the first time he appeared at the table with his mother, after her recovery, his old tricks were renewed, to the disgust and vexation of everybody. Was not the mother evidently to blame?

If children in ordinary health are not allowed to eat between meals, they go to the table with a good appetite, and are generally so occupied in that interesting process of satisfying a hungry stomach as to be willing to behave quietly if they find it required.

A certain lady had taught her little daughter not to eat between meals. A friend, knowing the mother's rule, deliberately tempted the child, a babe of only three years. Offering her some crackers, she said, "Here, Florence, take these nice crackers." "No, ma'am; mamma don't 'low me to eat 'tween meals." "But your mamma won't know it; take them and eat." "No, I tan't." "But you had better; there, take it," and she laid it down within reach of the baby hands. The poor child wanted it badly. Appetite and duty were struggling. The temptation was strong; at length she burst out crying: "Mamma don't 'low me to eat 'tween meals. But, oh! I 'faid I s'all." Poor baby! How wicked thus to tempt one of these little ones!

One thing I have known mothers to do, and which I consider very wrong, is this: When they desire to go out walking to attempt it slyly, so as to prevent an

outcry from the child; slipping out unobserved. It is especially wrong to both parties. The mother has rights which the child must respect.

It is contemptible in a mother to deceive her child, and it is very hard for the loving little heart that looks around the house for "mamma," and finds her not. The child would be much happier if it could give its mother a "good-bye" kiss, and be taught to feel an interest in her out-goings and in-comings.

A child properly trained never suspects but that its mother has a perfect right to go out when she so desires, nor does it require to be bought off with promises. It is wicked to promise to bring a child a present if you do not intend to do so. This teaches the child to doubt its parents' truthfulness, and the effect of that will be shown in after years. Children can not reason, but they feel truth and justice sensitively, and their hearts are simpler and truer than those of most grown people.

Children sometimes show terrible tempers; are obstinate or vicious. Parents blame them for it. What right have they to do so? The child's life is but a continuation of our own. We give it all it has. Its tendencies are inherited. "Pluck the beam from our own eye before we look for the mote in the babe's." A little girl once being particularly annoying, her mother said, "You are the most stubborn child I ever saw." "Well," she replied, "you say I look like my papa; what's the reason I can't act like him?" That was a *reasonable* question; but very many would have thought it most impertinent, when really it was not so. She had inherited firmness from her father; why blame her for acting according to her gifts? Firmness is an admirable quality, but it must be cultivated along with conscience, and then it helps to make a noble character. That mother, recognizing the usefulness of that quality, made it the lever with which to move the whole character of the child; as, for instance, she was very fond of candy, as are all children. The holidays approach-

ing she had a good deal given her, and she indulged in it freely, and in consequence her stomach got out of order, and the doctor was sent for. He came; said it was from over-eating, and prescribed a dose of castor-oil. In a few days she was better. The next time candies were given her, she was cautioned about eating too much. "But the candies are so good I want them. All children eat them, why not I?" "Because, my daughter, you inherit a weak stomach from both your father and myself. You are particularly unfortunate in that respect; you can not eat many things that a stronger child could eat with impunity." "But, mamma, it is very hard to give up eating good things because they hurt me." "My child, which is the more important: the gratification of your appetite or your health? Which is the stronger, your will or your stomach? Can't your will say to your appetite, 'Go down there, I won't yield to you. I will be master, not you.' Try it now and see which is the stronger, your stomach or your head." She tried it and came off conqueror, for the candies were divided among a crowd of little ones. The pleasures of benevolence and the knowledge of self-control repaid her for the sacrifice.

Another time she was tempted almost beyond the powers of endurance. She had refrained so long that she actually longed for them. She ate a few; they stimulated her appetite, and she wanted more. Knowing what would follow, her mother tried her former argument. There was a struggle, but the candies were more powerful than her will. At length her mother said, "Well, I put the responsibility on your own shoulders. You know sickness will follow eating them, and that is expensive. Therefore decide the matter for yourself. Eat the candies and tonight take the oil, or let both alone. Take your choice. I have no more to say." She thought the matter over for some time, and at last decided the pleasure was not equal to the pain. Conscience, and disgust at the oil, got the better of the sweets, and they were laid away.

After that the mother put the responsibility of all her actions on her own shoulders. If a question arose, she would explain the right and wrong, point out the results that would follow each course of action, and then add: "Now you know both sides. If you choose the right, all will be well. If you choose the wrong because it is pleasanter just at present, and bring trouble upon yourself, don't come to me for sympathy. It will not be my fault, and I must not be taxed to pay for your pleasures. You choose your path deliberately; therefore take what follows, and don't cry to me for help." After such a discussion she always chose the right; she dared not choose the wrong, and I do not believe one child out of a hundred would deliberately choose wrong, knowing what would follow. If they did so choose, the parent should let them suffer the consequences and not try to help them till they had been well disciplined. Parents make a great mistake when they make life irresponsible for a child. They must learn to bear little trials when young, that as they grow older and the burdens increase, the shoulders may be fitted to bear the burden.

A child taught to think out results before acting, is being trained in caution and fitted for life's journey.

This little girl thought it very hard that so much responsibility was put upon herself. It was hard at the time, but her mother knew it would be better for her ultimately. She was a mortal and subject to all the misfortunes that come to humanity. It would have been a cruel kindness to have shielded her so carefully that when forced into action by circumstances she would have been unprepared. The mother's head and heart, her judgment and love, were often at variance, but judgment conquered. She gave her one rule that always worked well. "When you don't know what is right to do, just think to yourself: Now if Jesus were here what would He have me do?" A child's conscience will decide that question aright almost invariably. Thus, little by little can we cultivate reason, self-control, thoughtfulness, and will-power, and thereby enable our loved ones to enter upon the weightier duties of life, better prepared for the inevitable conflict that comes to all sooner or later.

S. E. SIEGEL.

FASHION AND NATURE.

AN English woman, travelling awhile since in Japan, communicated to a London newspaper, in amusing terms, an incident in which the difference between her mode of dressing came into contrast with the simple habit of the Japanese women. She wrote from one of the towns:

"On my way here I was a cause of gay excitement wherever I stopped. Eliza, the nurse, was melancholy and intolerant of what she called their unnatural ways and unnatural language, which no decently reared person could understand. One morning she overslept herself, and an innkeeper's wife got hold of her set of false teeth, which all the villagers came to examine in the street before the house. When Eliza got up she could not find her

ratelier, and went searching for it like a she-bear deprived of its whelps. Her rage was dreadful on discovering that it had been made a public show, and was a cause of mirth and merriment. In another place—the country house of a ruined Daimio—where we obtained lodging and entertainment, I was a cause of much amusement. A number of ladies were invited to meet me at afternoon *nice* (the name for dinner). They sat on their heels around the little table which I used as a chair. My feet were stretched out before me. The hostess, with, as I took it, many apologies, began to inspect my boots. As her curiosity was keen, I drew them off. All the ladies pounced upon them, and some of them asked leave to put them on. Before doing this they

caused bowls of hot water to be fetched, washed their feet carefully, and dried them by fanning them, which made the wet evaporate quickly. As they all had children's feet, my boots were awkwardly big and more ridiculous than I can say. The ladies next handled my skirt and corsage, and to oblige them I took them off. The petticoats had their turn, then my stockings, which they did not laugh at; after them my buckled elastic garters, and last my stays. Japanese politeness here broke down. Every one shook and cried with laughter in looking at my stays. One of the ladies had picked up some French at Osaka (a treaty port), and explained to me that the others wished to know whether the stays had been invented to serve as a cuirass to protect fair Europeans from rude men, or was it worn as a penitential garment to expiate sins? I said, 'No, but to beautify

the figure.' This answer convulsed them. A stayed-up woman affected their impressional and well-educated eyes as something monstrously ugly and absurd. Japanese dress is beautiful and so easy. There was yet another question to be answered. There are, so far as I know, neither cows nor goats in Japan. Children are not, therefore, weaned until they are big enough to go to school. I had noticed that poor little Miss Mite was an object of general commiseration. I did not know why. The reason came out when my stays were being examined. There was a barrier between the mother and the child, which was cut off by them from its lacteal rights. I told them that we delegated the nursing duties to poor women and cows. I am afraid that I was imperfectly translated, for I saw that for a moment I was an object of horror."

Poor, untutored Japanese!

DIOGENES AND PLATO ON PRIDE.

DIOGENES. Fie on thy philosophy, Plato. In spite of all, thou art the veriest of aristocrats, while philosophy teacheth humility.

PLATO. Thou hast spoken truly, Diogenes, but not in wisdom; thy speech is wise, 'tis true, but thy thought is foolish. That I am proud, I own, and that I am a democrat, I do most sincerely maintain.

DIO. Now thou speakest in riddles. Thy words are double, and thy answer as the answer of the fool.

PLA. Gently, Diogenes. Anger not thy mind with quick speech that is void of wisdom. Let us inquire into this matter with the calmness and deliberation befitting the dignity of philosophy. Is not pride self-respect, and is not self-respect an admirable virtue?

DIO. Nay, nay, Plato. Thou art surely in the wrong here. Pride is vanity, and it leadeth to contempt for the merits of thy fellows. Thus is aristocracy fostered.

PLA. If it were as you affirm, then would I quickly eschew pride. But I do

not so hold. Nor did Socrates. He did maintain, most surely, that to think well of one's merits, and to regard one's learning and wisdom as of great worth, is to act like a philosopher. Methinks it were vanity, and not pride, thou wouldst condemn, Diogenes, and pride and vanity, I hold, are very different matters.

DIO. Thy reasons. Give me thy reasons for this opinion. I do maintain that pride is the root and substance of vanity.

PLA. Then thou dost surely not think wisely. Thy understanding is shallow and hath not the depth of philosophy. To be proud is to esteem one's self, while the vain man is anxious about the praise of the mob. Pride is self-reliant, confident, courageous. Vanity is fawning, anxious, and cowardly. Observe the beasts. What is prouder than the lion, or vainer than the peacock? The gods also are proud. Wouldst thou accuse them with the sin of vanity? And thou, too, art proud, Diogenes; the contempt for what thou callest my pride is the offspring of

thy greater pride. Thou believest in the wisdom of Diogenes more than in that of Plato. Is not this thy pride?

DIO. But Plato lives in a palace and clothes his person with costly raiment. Diogenes despiseth costly raiment and lives in a tub.

PLA. Diogenes is therefore shown to be not only prouder than Plato, but vainer also.

DIO. Vain, dost thou say, Plato? Art in thy right mind to call Diogenes vain?

PLA. I call thee vain, Diogenes, and if thou but hear me I will prove it. Thou art vain of thy fame, for thou art famous for thy humility. Even Alexander was wont to acknowledge that. Thou art proud also, for didst thou not refuse his patronage with scorn? Nay, thou didst trample upon what thou termest the pride of Plato, but thou didst do it with a pride far above the pride of Plato, and a show of vanity above the vanity of kings. Thou art proud of thy wisdom, also, Diogenes, and vain of thy learning. Thou thinkest that thou art wiser than Plato, else thou wouldst become his disciple; and richer than Alexander, else thou wouldst not scorn his gifts. 'Tis Diogenes who is the aristocrat. He thinks himself better than others, and is therefore above his fellows.

DIO. Hold thee there, Plato. Thou surely doest me wrong. Do I not live like a peasant, and scorn only the rich and they that are in high places; and is that pride?

PLA. Thou dost indeed wear the garb of a peasant, but thou also carriest a lantern to search for an honest man, boldly proclaiming that until such a man is found thou wilt live alone. Is not this virtuous aristocracy? Fie on thy democracy, Diogenes. By thine own argument thou art a greater aristocrat than Plato. But learn this and add it to thy stock of wisdom. True pride is consistent with philosophy, and philosophy is the foe of vanity.

T. A. BLAND.

A GOOD WIFE'S INFLUENCE.—According to the eccentric Ruskin, whose eccentricity in practical affairs consists mainly

in his ultra moral views of duty, "a judicious wife is always nipping off from her husband's moral nature little twigs that are growing in wrong directions. She keeps him in shape by continual pruning. If you say anything silly she will affectionately tell you so. If you declare, that you will do some absurd thing she finds some means of preventing you from doing it. And by far the chief part of all the common-sense there is in this world belongs unquestionably to women. The wisest things a man commonly does are those which his wife counsels him to do. A wife is a grand wielder of the moral pruning-knife. If Johnson's wife had lived, there would have been no hoarding up of orange peel, no touching all the posts in walking along the streets, no eating and drinking with a disgusting voracity. If Oliver Goldsmith had been married he never would have worn that memorable and ridiculous coat. Whenever you find a man whom you know little about, oddly dressed, or talking absurdly, or exhibiting eccentricity of manner, you may be sure that he is not a married man, for the corners are rounded off—the little shoots pared away—in married men. Wives have generally much more sense than their husbands, even though they may be clever men. The wife's advice is like the ballast that keeps the ship steady."

A NORSE LEGEND.

A NORSE king sat in his hall one night,
And the tempest was raging without;
The sea roared and dashed on the rocks near by,
And the lights of heaven were out.

A great fire blazed with a dazzling light
On the hearth of solid rock;
The brighter it gleamed for the blackness of storm
And the sound of the ocean's shock.

While he sat and talked a bird flew in,
And over the monarch's head;
Then out through the open casement again,
To the wild, dark night it sped.

"Such is life," said the king; "from darkness to light,
From sunshine to storm, without rest";
"Yes, sire," a courtier replied, "yet the bird
Has somewhere in safety a nest." M. L. E.



SUMMER LIVING.

THE season is near at hand when a large proportion of our city people go to different places for rest, recreation, or diversion, during the warm weather. Very few of the thousands who are able to do this give much attention to the matter of sanitation in selecting the seaside or mountain resort where they would summer; while the great importance of a healthful situation at such a time would be readily admitted. On this subject Mr. W. T. Parker, a contributor to the *Sanitarian*, not long since published in that magazine some practical counsel, and it is reprinted in part here for the benefit of the JOURNAL reader whose physical condition disposes him or her to reflect upon where the summer may be spent with real advantage:

"By the seaside, in the mountains, amidst the Thousand Isles, and on the shores of our beautiful lakes, we find all classes. It would seem for many a health-seeker a desperate struggle, and for some a hopeless one. On many faces you can almost see the question, which baffles the mind within—'Where can I go with any hope? Is it here or ever so far away?' Alas! this chase for better air is like the hunt for the fleeting 'will-o'-the-wisp.' Conflicting statements, groundless hopes held out by careless investigators or well-meaning friends, add to the despair of decision. The unfinished opinions of our best judges concerning comparatively new

health resorts, the changing of climate, which seems to be taking place continually, all these obstacles one has to contend with in making a selection. The answer to this question of vital importance to the sufferer deserves deepest thought and consideration, and no one, unless he has given the subject the practical study it demands, has any right to attempt its solution. Undoubtedly to many simply *change* is the needed advice, and the necessity is brought about by climatic peculiarities.

"An atmosphere too moist or too dry, too cold or too hot, a climate loaded with malarial poison—all these conditions suggest the necessity for change. After all, the great thing needful for so many is out-of-door exercise, but this must be sought for in a desirable climate. It is not everywhere and at all seasons that these privileges can be enjoyed. So many of these health-seekers have left comfortable and even luxurious homes to live in small, poorly ventilated rooms, and seek sustenance from an insufficient quantity of food, not even properly cooked. The wholesale departure from their usual home habits does not necessarily signify unrest, or a desire for a change of scene; but the increasing appreciation of the necessity for better air—air suited to recuperate the failing strength.

"It does not require extensive travel to demonstrate that the condition of the at-

mosphere is found to be variable even at short distances. Moisture, dryness, in all degrees, loaded with the healing products of the sea and forest, or poisoned with the impurities of cities, stagnant ponds and rivers, and dust of the prairies. All these conditions must be taken into account. In many places the air gives the sensation of strength at every breath, and we are conscious of the beneficial effects. In other places we breathe almost in vain, the air seems worthless. Here we will find the pure air of the ocean, but only ten miles distant, it may be, on the same coast, a river, which has been converted into an open sewer, has loaded it with death.

"It is useless to place the finger on any map and say that this or that place must be healthy from its geographical position—it does not follow. Many illustrations could be furnished to prove how short the distances are between life-giving and death-dealing atmospheres in both this country and in Europe. The work of thoroughly sifting the good from the bad, and the affording of some definite reliable information about climates, will take many years yet for its accomplishment; and even when such a system of climatology is apparently completed, constant revisions will be necessary as places become changed by sanitary neglect or climatic changes which are constantly taking place. . . .

"It is possible for towns and villages to inaugurate a system of sewerage and of sanitary laws which shall be not only a future economy to the commonwealth, but a protection against the loss of many valuable lives. This will be undoubtedly realized to a greater or less degree in the near future. We shall have communities educated through many sorrows to the necessity of proper sanitary precautions in the first place. The present prevailing deplorable state of neglect and selfish indifference can not last forever. Men are beginning to realize that even though they be without families themselves, the health of the community is of tremendous importance to all who are not ene-

mies of society. All are affected more or less, and especially so those who possess, or hope to possess, property. Neglect of the ordinary sanitary laws means sooner or later increased taxation to undo, if it were possible, years of neglect and perverted, miserly economy. A careful perusal of Mr. Bowditch's able article just referred to, and examination of the sanitary reports of towns along our sea-coast from Maine to Georgia, made by competent, unbiased medical officers of our navy, would convince the most careless that a radical change must take place, and the sooner the better. The present state of affairs is really a deep disgrace to an enterprising, go-ahead people. It takes only a few moments' conversation with any man or woman of good sense to find out that they desire in their neighborhood at least that more attention should be paid to these questions of sanitary reform. But the difficulty is to arouse public attention. We are too much the slaves of the most ignorant and bigoted classes in our cities and towns, and it is only latterly that our leading citizens are coming to their senses, and awakening to an interest in political matters; and at last, perhaps, they are beginning to realize that public honor, wealth, and health are not to be intrusted and no longer thrown to the rabble for their guardianship. It is the duty of all good citizens to unite in intelligent effort for the general health. Neither should our communities be indifferent to leaving a legacy of respectability to the future. As we take pride in handing down to our children our national institutions free and unincumbered, so the good sense of a cultivated people should aim at giving to our posterity healthy homes, pure water supplies, and freedom from dangers of crowd poison so far as human wisdom can suggest and a generous pecuniary outlay will provide. The public should be instructed in general hygiene as thoroughly as possible. . . .

"Men are so accustomed to look upon disease as an unavoidable evil, that the idea of preventing it by any means of

their own, seems to have never distinctly occurred to them until within comparatively modern times. Preventive medicine, as it has been called, is one of those things that are theoretically approved, and too often practically neglected. No one doubts its importance.*

"It would be well, indeed, to have laws enacted to protect the public, and to punish neglect of ordinary sanitary requirements. Our summer resorts, as a whole, are sadly in need of thorough overhauling: many are absolutely dangerous to the lives of those who patronize them. Immediately in their neighborhood may lurk death in many forms: typhoid fever, diphtheria, scarlet fever, and other diseases are escaped by what often seems a miracle.

"Vaults crowded together, and giving out foul odors, and yet receiving no attention. The plea that the season is short, and that needed alterations and improvements cost money and consume profits, is one very commonly met. A notable case on the New Jersey coast comes to mind, where, after a guest had contracted typhoid fever, through the lack of ordinary sanitary precautions in the hotel, the patient was compelled to pay a large amount, under a threat of ejection, at the peril of his life. A hotel proprietor in the Adirondacks pointed out to me, with considerable pride, his own (to him) elaborate system of sanitary arrangements for the safety and comfort of his guests, and severely criticised other hotels for their bad drainage. But it required only a short stay in his house to prove the dangers existing on his own premises. His privy vaults and pig-pens being quite near the hotel, and in the line of the prevailing winds, made a long walk necessary on many afternoons to escape the sickening stench. Fathers of families recognize more than ever the fact that, if it be desirable to send their wives and children away for rest and physical improvement, it is essential that they should be sent to healthy places. . . .

* Dr. Tracy, in *Ziemssen's Cyclopadia of Medicine*, Vol. XIX., p. 573.

"Luxurious living, pampering bodily comfort, varied indulgence of the appetites, unwillingness to face cold and storm, almost hermetically sealed houses, and many other causes, alas, too well known, are sapping the strength from the American constitution, not to speak of our greedy chasing after wealth, and our restless, nervous energy. Certainly there must be some fault in our mode of living. It is probable, however, that we suffer to a greater or less extent in this generation for the hardships of our ancestors. How much more we suffer from nervous exhaustion than any other nation in the world is not difficult to prove.

"Another great evil in relation with our health resorts is the indifference of landlords to providing wholesome fare. One more or less famous hotel proprietor at a fashionable hunting and camping region, on being requested to procure a better supply of meat, replied, 'What's the use? my people will eat anything I give them. I can't even turn them out of my house. I can fill every room, and they must take what they can get.' This is not an unfair sample of the concern for their patrons' comfort which one finds among landlords at many health resorts north, south, east, and west. There are exceptions, and it is a pity that those who honestly strive for the health and happiness of their guests are not better known.

"One cause for the peculiar condition of the American constitution is found in *how* and *what* we eat. We eat too hastily, drink too much water while eating, and hurry to our occupation immediately upon leaving the table. We are careless about our food so far as cooking is concerned, but fearfully exacting with the 'bill of fare.' Our hotels seem to vie with each other in having as great a variety as possible! It makes little difference whether certain articles are in or out of season, they must be had at any cost or in *any condition*, for the 'bill of fare' must be complete. . . . These statements may seem very foreign to the subject under consideration, but it is important to consider how much injury is done

to health-seekers at our resorts by our miserable attempts at a showy bill of fare, and the absence of wholesome food. In many of our homes a wholesome table is the rule, but the vast majority of our people live contrary to all rules of health, although spending enough money to feed half a dozen households well. . . .

"We need a revolution in the first place in our kitchen, as well as in our manner of eating—a simple, healthy, generous, nutritious table, more like the living to be found in good old England today. Fewer pies, cakes, and pickles, and

less pork—which few, if any, Americans ought to eat at all. Then, too, our national restlessness, rushing from the office to our midday lunches, the everlasting half-warmed tea, preserves, doughy bread, and cake and iced water.

"All these things and many more have to be considered in estimating the American constitution. Our habits are very different from those of other nations, who certainly on the average enjoy better health, and as we approach the living of sensible English families we find our constitutions strengthening."

HUMAN LIFE LONGER.

SINCE the carefully prepared volume by Hufeland, the subject of prolonging human life has been under consideration by many physiologists of eminence, and their contributions to medical literature in that line already form a large section. To hygiene is very properly attributed what improvement there may have been in the past century in the general health of the masses, and in the average longevity of all classes.

In a recent lecture before the Medico-Chirurgical Society of Sheffield, England, an interesting summary of the facts concerning the actual increase of the life-period in England was presented by Dr. John Foster. These facts, especially those of pathological import, apply with almost equal truth to our American experience, and for that reason we are warranted in publishing a transcript of the lecture, as follows:

"The late Dr. Farr, in his description of the march through life of a million children, has given the following results: Nearly 150,000 will die in the first year, 53,000 in the second year, 28,000 in the third year, and less than 4,000 in the thirteenth year. At the end of 45 years, 500,000, or one-half, will have died. At the beginning of 60 years, 370,000 will still be living. At the beginning of 80 years, 90,000; at 85 years, 38,000; and

at 95 years, 2,100. At the beginning of 100 years there will be 223, and at 108 years, 1. The mean lifetime of both sexes in England was calculated some years ago to be 40.858, or nearly 41 years. Mr. H. Humphreys has shown, however, that in the 5 years, 1876 to 1880, the mean age at death was 43.56 (females 45.3); being a gain of nearly $2\frac{3}{4}$ years. Thus, within 20 years, notwithstanding an increased birth-rate, density of population, and the unsanitary condition of towns suddenly grown large, more than $2\frac{3}{4}$ years have been added to the life of every inhabitant of England.

"The *Spectator* asks: 'What is the kind of life which is increasing? Are we young longer, or mature longer, or old longer? Do we live longer, or are we only a little slower in dying?' I am bound to admit that some of the gain in early life is lost in middle life; that, while the expectation of life at birth is $2\frac{3}{4}$ more, the expectation from 35 to 60 is a fraction less. But notwithstanding the slight increase of mortality at 35 and upward, a large portion of the additional survivors live on to the higher ages. Of 1,000 born, the additional number of survivors is 35 at the age of 45, 26 at 55, 9 at 65, 3 at 75, and 1 at 85. The increase is much greater among females. By far the larger proportion of the increased

duration of human life in England is lived between 20 and 60. It is interesting to ascertain what is the natural limit of existence. Dr. Farr says the natural lifetime of man is a century. That is the length of time the body will live under the most favorable conditions. Another most interesting question is, 'When does old age commence?' Dr. Farr has divided life as follows: Boyhood, 10 to 15 years; youth, 15 to 25; manhood, 25 to 55; maturity, 55 to 75; ripeness, 75 to 85; and old age, 85 and upward.

"Old age really begins in certain pathological changes which take place at different ages. It is interesting to learn what conditions hasten or hinder these changes. It is held that all life begins in a formless fluid, and from this develops into the varied forms of living beings. There is a life-force, inherited from a pre-existing life, which builds up matter into living tissue and holds it together for a time; and the tenacity with which this force holds organized matter together does not depend on size, or strength, or muscular development altogether, but rather probably on an even balance between the several parts and on something more. As the strength of a chain is equal to its weakest link, so the vital strength of the body is equal to the weakest organ. After the middle arch of life is passed, these changes become commoner; and there is danger, if we continue to put the same pressure on a weakened vessel, that it may burst. In the hurry and strife of life, men too often forget this truth and pay the penalty. After 50 or 55 a good deal more rest and sleep are required than in earlier manhood. The physical powers have begun to fail—the mental powers should be at their best. It is probable that some of the greatest literary productions have been the work of men between 50 and 70. Living public men in every department of literature, science, art, and politics may be cited in proof. For many years after the degenerative processes of age have weakened the bodily powers, the intellectual powers remain comparatively un-

affected. A weakened nerve-fibre may retain its continuity, and a diseased vessel in the brain may hold its entirety for a great length of time if no great strain is put upon it.

"In taking the period of 65 to 75, and still following the fortunes of the million children born, we find that 309,029 enter this age and 161,124 leave it alive. Diseases of the brain, heart, and lungs are the most common—31,400 die of old age. The numbers that enter the next decennial—75 to 85—are 161,124, and the number that leave it alive are 38,565. About 122,500 die chiefly of lung, brain, heart, and other local diseases. Nearly 59,000 die of atrophy, debility, and old age. Some writer says that he has met few or no cases of death from old age—everybody dying of some recognized disease. It is true that the symptoms of disease become obscure in old age, many cases of pneumonia and other inflammations escaping recognition. But it is also true that many deaths attributed to disease are mainly due to old age; slight injuries, cold, heat, want, or attacks which in early years would have been shaken off. Of the million with which we started, 2,153 live to the age of 95—223 to 100. Finally, at the age of 108, one solitary life dies.

"Diseases may be divided into two great classes—the parasitic and the degenerative. The former are more prevalent in early, and the latter in the later stages of life. Of cancer, which is one of the diseases of old age, it is uncertain whether it belongs to the parasitic or the degenerative type. As it is the duty of the physician to help man through as many of these stages and with as little pain as possible, it becomes important to study how to protect him from accidental diseases, and how to husband his forces so that he may travel far over the way before his strength shall fail. The first essential of life is food—and beyond doubt the majority are underfed, and a large proportion improperly fed. The mortality among the poor and the hard-worked, at all stages of life, is amazing

larger than among the middle and higher classes. The human constitution possesses a great amount of elasticity, and will tolerate departure from correct diet for a length of time, but in the end the penalty is rigorously exacted by nature. Lessened vitality inevitably follows impoverished blood and ill-nourished tissue. Undoubtedly men are better fed than formerly, and fewer die of starvation. But the increased density of the population by the flocking of people to the towns has intensified old dangers. Unless sanitary improvements keep pace with the increase of population, the mortality increases. One-seventh of the population of Great Britain live in London—a large portion of the rest, live in large towns. Dr. Farr says, 'What is especially remarkable in London, is the high mortality of all ages after 25.' It is due to pulmonary disease. The same holds good of all large towns. Improved health-conditions and increased population are fighting a great battle, and, on the whole, if not at every part of the field, health is winning.

"Heredity has also something to do with the chance of reaching old age. This transmission of qualities acquired and inherited lies at the root of all improvement of the race. To leave the body better than we found it, and transmit that improvement in vital force to posterity, is the true evolution by which hereditary taints may be abolished. A cruel pathology was once taught that certain constitutions were doomed to hereditary diseases, and distinct lines of demarcation were drawn between people so affected and others. Logically that doctrine can only be sustained in a limited sense. The blood cells, the inuscular fibres, the epithelial scales live their time, are cast off, and are succeeded by others and often better ones. Thus, death is not only the end, but the beginning of life. 'That which thou sowest is not quickened except it die,' is a philosophical truth and lies at the root of all improvement of the race, as well as at the root of all Christian faith." The study of self—body and mind—is the initial step in the process.

THE HYDROPHOBIA PUZZLE.

WE have not been bitten—hope our readers may never be. We have madnesses of many kinds, but none quite so horrible as this, or so fearfully certain in its results. Whether a real disease, or only a morbid, mental frenzy, it is all the same to the unfortunate patients: they suffer intensely, and die apparently in great agony. That diseases of this kind may be simulated by sympathy no well-informed person can deny. Laughing, crying, stuttering, St. Vitus' dance and even epilepsy are communicated or taken on in this way. A colored girl in Moundsville, Marshall Co., W. Va., in mocking another girl with fits, was seized with the same symptoms; and notwithstanding she was otherwise perfectly healthy, medical science utterly failed for four years to cure her. She was finally cured by animal magnetism, thus

proving that the malady was purely mental in its causation.

But there are numerous cases where there is nothing for the mind to imitate. A death by hydrophobia in Brooklyn is a case in point. The man had forgotten that he had been bitten. Some years ago, a colored man in Illinois died with the disease thirty years after the wound was received. In 1858 a boy (Swift by name) in Leavenworth City, Kansas, was bitten by a very young pup; a Mrs. Keller was also bitten by it. Neither suspected that the dog was mad. There had been no cases in the neighborhood; and yet the boy developed the disease and died. The woman took an antidote and escaped. Some years ago there was published the case of a girl whose dress was torn by a rabid dog. When repairing the dress, she bit off the thread. On

her lip was a sore. A few days afterward she was seized with the usual symptoms and died. It may be true that some doctors never see a case, and that the poison does not operate in all cases, and that it is hysteria, or pure imagination in many instances; but the facts show that dogs do have the disease and die with it—that they do become deranged, and bite in an unusual manner; and that horses, cows, and other dogs bitten by mad dogs, do go mad; and surely the medical wisdom that diagnoses hysteria will not assert that horses, cows, and other dogs contract the disease *sympathetically*. The facts of the matter are, that the disease is not a phantom of a disordered brain, that it may originate in men as well as dogs, that it does not develop in all persons in the same time; and that medical science really knows little or nothing about its etiology or cure, therefore it ill befits some professors who try to ridicule it out of existence, by asserting that “popular fallacy alone has made hydrophobia a great terror in certain communities.”

If the disease is purely mental, then mental remedies alone can cure it. But there are numerous cases of well-defined symptoms, where the cure was effected by material remedies alone. No mental antidotes were even proposed; and so that other sage deduction, that the mad-stone cures by imagination alone, and therefore all recoveries are due to this cause, falls to the ground. This is only one of the many tricks of trade by which some representatives of medical science would cover up their ignorance. Only a few years ago, the whole fraternity denied the doctrine of mental cause and cure for diseases. *Now* it in great part concedes that imagination “convulses the body,” and imagination allays the convulsions, because they know no other cause and deem this mysterious.

Just here we may inquire, what right has the profession to set up an opinion about a disease which it does not understand and can not cure?

“If we admit,” says a doctor, “that hydrophobia is a form of hysteria, we

furnish at once an explanation of the wonderful curative properties of the mad stone.” But suppose we do not admit this theory, and suppose it is not correct, then what of the explanation? After all, it is only a theory unsupported by fact, science, or logic. The medical faculty is at fault on this as well as other important subjects. Because they can not cure it themselves they are unwilling that hydrophobia shall be cured by non-professional empirics, or “quack” remedies. But this is not the worst feature of their offending; by ridiculing the existence of the disease they betray their confiding patients into a false security, and thus prevent that caution which would often protect life.

Mad-stones may or may not cure hydrophobia. They are scarce, and therefore seldom available. Nevertheless the testimony in their favor is very strong, and many persons have implicit faith in their virtues. They are said to be an abnormal product of the stomach of deer, resembling somewhat the common pumice-stone. The method of application is to wet, and place it on the wound, to which it seems to be attracted, if the virus is there, and retains its hold until fully charged, when it drops off. It is then placed in warm water, until cleansed, then replaced, and the procedure repeated until the stone no longer sticks; the cure is then deemed complete. If the wound is healed, it must be reopened to make the application.

There are said to be specimens of this mad-stone in Kentucky, near Independence, Mo., in Kansas, and Fairfax Co., Virginia, a few miles from Washington city.

In Asia they have a similar device for the cure of snake-bites, which, according to our best information, is relied upon by the natives, and particularly the snake-charmers, who run great risks, and would hardly do so without some reliable antidote. It is also a well-known fact that hunters have great faith in the warm, bloody flesh of a freshly killed animal for poisons; that persons have been saved

by killing *the snake*—cutting it open, and laying it on the wound.

Many years ago a lady passing through the woods in Virginia was bitten by a rattlesnake on the foot. The foot swelled and became so painful that she could not travel; seating herself on an old log, with death staring her in the face, she commenced pulling off the matted moss, and placing the inner or under side on the wound; when, to her surprise and joy, the swelling went down, the poison was extracted, and she was enabled to reach her home.

The affinity of raw onions for the virus of snakes is too well known to require proof. The onion placed on the wound with salt, absorbs the virus, turns green, and if continued, usually cures, as many instances attest. To all these many other facts might be added, making more than plausible the mad-stone thesis.

Dr. Marchant, who died a few years ago near Uniontown, Penn., treated hundreds of cases successfully, by a remedy held as a family heirloom. His ancestors were physicians, and transmitted it to the oldest son through many generations. But unfortunately he would not publish it, and when he died it was lost, whether by accident, neglect, or the fact that he left no son, we can not say.

Tradition cites several other remedies which have been incidentally successful, such as sweating, vapor-baths, eating largely of onions after the spasms commenced, ammonia, sulphuric acid, sweet milk, and colombo root.

We have one well-authenticated case of cure by the external use of juniper oil, after the disease had fully developed.

The history of this dire malady shows that it is not limited to nine days or nine years in its development. Numerous cases occurred long after the sufferers had forgotten the fact of the biting. This may account for the hysteria and brilliant imagination of dull doctors and explain their ignorance. In nearly all cases there is abundance of time to anticipate the virulent and morbid symptoms; but un-

fortunately the victims rest under false security until remedies are powerless.

Moral: The doctors should ascertain the cause, and provide a remedy that shall be generally reliable, or cease to ridicule their own inefficiency.*

H. M. S.

* Since the above was written M. Pasteur, the French savant, is said to have discovered an antidote for this terrible disease, in an attenuation of its poison, taken from the blood of a rabid animal with which a patient is inoculated. We will wait for the results of its trial on human subjects.—Ed. P. J.

A CURE FOR CANCER.—A correspondent writes as follows on this subject to the Columbus (Miss.) *Independent*:

"I send you herewith a remedy for that horrible disease, cancer, which I believe is a certain cure. A friend of mine in Louisiana has been cured by the use of this remedy, and a gentleman in South Mississippi, to whom he gave the receipt, has also been cured. Please publish for the benefit of suffering humanity.

"Use the extract of sheep sorrel prepared as follows:

"Gather the sheep sorrel when green, place it in a mortar, beat it up very fine, express the juice, and strain it in order to get rid of the lint and trash. Place the juice in a deep plate, and set it in the sun until it evaporates to the consistency of molasses or honey. Spread the salve thus produced on a piece of kid, or on a linen cloth, and apply to the affected part, renewing it two or three times a day. This application in two or three days will cause the ulcerous part to slough off, after which apply a simple ointment to heal the sore.

"The remedy is sure and causes considerable pain, but it is otherwise harmless. If the patient has the nerve to stand the pain it produces, it will effect a radical cure."

We give the above for what it is worth, and in the hope that those afflicted will find benefit from its trial.

NOTES IN SCIENCE AND AGRICULTURE.

The Academy of Anthropology.

—At the last meeting of this body, May 6th, it was suggested by the president that its curriculum of study warranted the presumption of its becoming, in time, a teaching body. In a city like New York, and with a membership that includes such reputable and able teachers as were present at its last session, there is no reason why the plan of section-study laid down for members should not attract many students.

At present the three sections are these :

I. **PSYCHICAL RESEARCH**, which includes a vast field of unclassified and important phenomena, material and spiritual, which stand directly related to practical life and social well-being. The study of involuntary life, particularly its supreme expression, the trance state ; natural and artificial somnambulism, dreams, visions, and other morbid conditions of the mind ; the use of psychic influence as a curative agent in nervous diseases and as an occasional substitute, at least, for nauseous and dangerous anæsthetics in surgery ; all of these themes are of vital interest. The treatment of the insane and the responsibility of criminals ; the transmission of tendencies of an abnormal type, and the neurological and pathological facts revealed by so-called "faith or prayer cures," show how closely philosophy, science, theology, and medicine are connected with the study of psychology. The validation of human testimony and the estimate of guilt in questions of criminal jurisprudence are of vital importance in this age of violence, suicide, and lawlessness. Then there comes a co-ordinate department or section—

II. **SOCIOLOGY**, or the study of the structural and functional forces of civilization ; political economy, the laws of population, the industrial arts, sanitary science, the accumulation and distribution of wealth, labor and capital ; social diseases and their remedies ; heredity, inebriety, marriage, infanticide, divorce, and unnumbered topics that naturally group themselves in this general department of social science. The whole subject of right living, the causes and cures of those evils that are sapping the foundation of morality and national strength, lie within this section.

"*Homo sum ; humani nihil a me alienum puto.*" The field, indeed, is broad, yet, as Dr. Thwing observed, "The student need not find it a Cretan labyrinth with endless windings, but an orderly system of truth, luminous and progressive. Unexplored territories there are, but a true scientific spirit will, like the clew of the princess Ariadne, guide one safely through baffling perplexities."

III. **THE NATURAL HISTORY OF THE RACE**, archæology, ethnology, mythology, and kindred themes formulate the third section. Subdivisions may include glossology or philol-

ogy, technology, the industries of the race, an enticing topic as illustrative of the social advancement of man during the centuries ; phrenology, physiognomy, hygiene, and related themes.

Anthropology thus studied in the broad, lexical meaning of the word, and not in the narrow, encyclopædic sense, sometimes given it, would surely attract many students of human life, men and women, who wish to gain more clear and comprehensive views of the possessions and possibilities of individual lives and of society at large.

A Food Reform Society.—A movement is now on foot among several gentlemen of progressive tendencies to establish a food reform society in the United States, analogous in its character and objects to those already existing in Europe. The principal features of its work as stated in the circular issued by the "Provisional committee," will be the promotion of the use of grains, fruits, and other products of the vegetable kingdom, as essential articles of diet ; the advocacy of total abstinence from the flesh of mammals, birds, and fish, and to spread the knowledge of the fact that the majority of mankind have always subsisted on non-flesh-foods.

Those who may desire to contribute toward the formation of this society are requested to communicate with Dr. M. L. Holbrook, 13 Laight Street, New York, or Mr. F. P. Doremus, 499 Carlton Avenue, Brooklyn, N. Y.

An Ancient Ship.—The largest vessel, next Noah's Ark, on the records of the ancients was built by order of Hiero, the second tyrant of Syracuse, under the superintendence of Archimedes, about two hundred and thirty years before Christ, the description of which would fill a small volume. Athenæus has left a description of this vast floating fabric. There was, he states, as much timber employed in her as would have served for the construction of fifty galleys. It had all the varieties of apartments and conveniences necessary to a palace—such as banqueting-rooms, baths, a library, a temple of Venus, gardens, fish-ponds, mills, and a spacious gymnasium. The inlaying of the floors of the middle apartment represented in various colors the stories of Homer's "Iliad"; there were everywhere the most beautiful paintings, and every embellishment and ornament that art could furnish were bestowed on the ceilings, windows, and every part. The inside of the temple was inlaid with cypress wood, the statues were of ivory, and the floor was studded with precious stones. The vessel had twenty benches of oars, and was encompassed by an iron rampart or battery ; it had also eight towers and walls and bulwarks, which were furnished with ma-

chines of war, one of which was capable of throwing a stone of three hundred pounds weight or a dart of twelve cubits length, to the distance of half a mile. To launch her Archimedes invented a screw of great power. She had four wooden and eight iron anchors; her mainmast, composed of a single tree, was procured after much trouble from distant inland mountains. Hiero finding that he had no harbors in Sicily capable of containing her, and learning that there was famine in Egypt, sent her loaded with corn to Alexandria. She bore an inscription, of which the following is part: "Hiero, the son of Hierocles, the Dorian, who wields the sceptre of Sicily, sends this vessel, bearing in her the fruits of the earth. Do thou, O Neptune, preserve in safety this ship over the blue waves."

An Illuminated Buoy.—Imagine an enormous lamp riding the waves. The buoy is a compact wrought-iron vessel, which serves as a receiver of compressed gas. The duration of the flame depends upon the size of the buoy. Some in use in Europe have been made to burn 30 days and some 120 days. It is said that a buoy of sufficient size will contain gas enough to furnish the light for one year. During that time the flame is steady and constant night and day, requiring no attention whatever after once put in operation. The lantern attached to the buoy admits air enough to feed the flame, but not a particle of water can enter. The most violent gales, the greatest force of the waves, submerging even beneath them, has no effect upon this light. It burns with undimmed brightness as long as gas is in its reservoir. The light, it is said, can be thrown six or seven miles in clear weather. Salty deposits are not made on the glass of the lanterns, as has been demonstrated. The refilling of the buoy at certain intervals is performed by a tender, and requires but a few minutes' time. It is done by passing the gas from a store-holder, which contains the gas compressed to ten atmospheres, by means of a flexible tube into the buoy at a pressure of six atmospheres.

Forests and Drainage.—Here is an apt illustration of how forests affect soil drainage: "Cover a table with a thick stratum of spongy moss and pour on a gallon of water. The water will ooze through and trickle down the table, but very slowly, day by day, and that process of filtration will continue for a long time; four hours after, the table will still be dripping wet. Then remove the moss and empty the same gallon pot on the centre of the table. This time the deluge will pour down in a thick rush, and four hours later the table will be as dry as if nothing had happened. With the same difference of result a rain shower acts on a wooded and treeless country. The forest, with its network of moss and roots, absorbs nine-tenths of the moisture, and yields it slowly in brooks and perennial springs. A

naked hill permits it to pour down in rapid deluge; brooks swell to torrents and rivers to seas; but in the summer-time those same rivers shrink to shallow creeks, their headwaters in the treeless mountains have run dry."

A New Process of Tooth-Drawing.—A dentist of Geneva has invented a new and ingenious process of tooth-drawing, which, if introduced, will prove most acceptable to toothache sufferers. A small square of india-rubber, pierced with a central hole, is pushed over the tooth till the upper part of the root is reached. The india-rubber gradually contracts, pulls on the root, and the offending tooth is finally enucleated without causing the patient any pain whatever. Four or five days are generally required to complete the operation. Very slight bleeding and a slight swelling of the gum are the only inconveniences experienced. M. Paul Bert brought this ingenious method before the Academie des Sciences in Paris, when M. Galippe remarked that the process was already known, and quoted a case in support of its efficacy, in which a young girl had placed a ring of india-rubber round her two front incisors, and forgot that she had done so, the result being that she lost the teeth.

Excavations at Rome.—In the excavations which are being made by the order of the Minister of Public Instruction near the Church of Santa Maria Liberatrice, between the Via Sacra and the Via Nova, under the northern corner of the Palatine, discoveries of great importance have taken place. It was noted, in general, that that rectangle of ground must have been occupied by buildings annexed to the very celebrated Temple of Vesta, and especially by the house once inhabited by the Vestals (Vestal Virgins). There were discoveries at that place in the fifteenth and sixteenth centuries that disclosed monuments whose character is now confirmed. For instance, in the year 1497 were found on the precise site which is now being excavated twelve pedestals of statues erected, chiefly in honor of Vestal Virgins. In the year 1549 two other similar pedestals were found, and at the same time the Temple of Vesta was destroyed, which was then standing in a state of preservation relatively perfect. The remains of a vast and very noble building have lately been reached, of which the groundwork and compartments suit admirably as the residence of Vestals. It comprises a vestibule (*atrium*) surrounded in the interior by apartments of diverse sizes, and a principal saloon with a mosaic pavement of the finest speckled marble, doors with Portasanta panels, plinth, with cornices of antique red, etc. The vestibule communicates with the principal saloon by means of a gallery with gray-colored columns, the trunks of which lie overthrown upon the ground. The supposition that this atrium (vestibule) might justly be that of Vesta, and that this dwelling might certainly be that of the Vestals, has received to-day a confirma-

tion, by the discovery of three other grand pedestals similar to those found in 1497 and in 1549, and containing the identical inscriptions chiefly in praise of Vestal Virgins. The names of these priestesses appertain to the cream of the Roman aristocracy of the third century; every half column gives the very day and year in which it was dedicated. Besides these monuments have been found an inscription dedicated to Commodus by a private citizen; an inscription dedicated to Alexander Severus by the contractors of the public highways of Istria, of Venice, of Transpadana, of Emilia; a head of Commodus; a very fine bust of Annio Verus, intact; a second imperial historical bust; a considerable quantity of written, figured, ornamental marbles. Also some 800 Byzantine silver coins, and one of gold.

Turin, Italy.

HENRY NOBLE.

To Keep Down House Insects.

—Of course scrupulous cleanliness will dispose of most of them. Keep the yard free from decaying vegetables, refuse from the kitchen and the drain of the sink, and sweeten the out-buildings with lime, and flies will mostly emigrate to promising quarters. The few stragglers which remain can be nearly excluded by frames covered with millinet placed in the windows when open. These will also keep out the vexatious mosquito. Myriads of these latter insects are often bred in swamp spots adjoining the dwelling. Proper drainage will route them at head-quarters. The rain-water cistern is also prolific in mosquitoes: place a few lively minnows or other brook fish there, and they will fatten on the larva of the tormenting insect—thus the biter will be bitten.

The flea delights in the dust and litter of the wood-house and the wagon-shed. Remove all this, sprinkle fresh lime in its place, add whitewash to the beams and boards, and the fleas will soon vanish. Take up all the carpets, beat them thoroughly with a slender rod, and scatter pepper around the sides of the room where the edges of the carpet are to be laid. Then, once a fortnight, whip the outside breadths upon the floor with a light switch, and the remaining moths will be beaten out.

The chinch, or bed-bug, can be routed by first washing all parts of the bedstead with cold water, and then, with a brush, applying corrosive sublimate dissolved in spirits, or an amalgam of lard and quicksilver rubbed together. Or ask your druggist for six cents worth of unguentum; mix it with lamp oil, and apply it with a brush to all joints and crevices, when the bugs will sleep, and allow you to do the same.

Caution in Silk Culture.—Things are not always what they are said to be, and this proverb has its application to silk culture. The *Tribune* has occasion mildly to remark: "The usually cautious *Western Rural*, which is doing excellent work in the interest of farmers and their families, admits to its columns the statement from a Kansas con-

tributor that 'young ladies or others' in pursuit of 'pin money' can 'make from \$15 to \$25 in forty days with silk-worms.' Several less cautious contemporaries are publishing similar statistics, all apparently inspired by self-seeking persons with eggs and other supplies for sale, or interested in the crafty scheme now being pressed in Congress for a Bureau of Silk Culture, with \$150,000 of Government funds with which to set it a-going." The *Tribune* has "on file reports of various actual experiences of women in this 'new industry,' not one of which is favorable. A great amount of labor is involved, some of it anything but pleasant; one says she would 'rather take in washing' for a living. And when the cocoons were finally ready for market, in some cases the money was not forthcoming from dealers to whom they were consigned."

"Salt."—Sir Lionel Playfair contributes to *Good Words* some of the reasons why the word "salt," as used in the Bible, often meant what is called petroleum nowadays. He says: "Many things become comprehensible if we take the generic term salt and apply it to petroleum and its residue—asphalt. Lot's wife, if converted into a pillar of common salt, would have been washed away by the first shower of rain; but a pillar of asphalt, even as a memorial of her, would have been an enduring monument and might have been seen by Josephus and his contemporary, Clement of Rome, both of whom declare they saw it. So, also, when we are told by Mark that 'every one shall be salted with fire, and every sacrifice shall be salted with salt,' I see a meaning only when I recollect that in regions containing petroleum, sacrificial fires were fed with this fuel to aid the burning. In like manner when Matthew likens the blessed first to salt and immediately afterward to a lighted torch (for candles, as translated, were then unknown), I see the connection in his mind. He had just said that salt which had lost its savor was only fit to be trodden underfoot of men. Now salt never does lose its savor, and is never fit to be trodden underfoot. But petroleum does lose its essence by exposure, and out of the residue the ancients used to make asphalt pavements, as they do at the present day."

Cauliflower Raising.—A correspondent of the *Weekly Tribune* says: "I raised splendid cauliflowers last season by this method: spaded very deeply a deep, rich piece of ground, inclining to moisture, and turned in all the rich old rotted manure I could well use. The plants were set out May 1, after being wintered in cold frames. When the weather became dry, I occasionally poured on each plant a little diluted manure water, so that by late summer the heads began to form, and finer heads I never saw. They headed successively until freezing weather. As soon as the white flower-buds, or crown, showed, the leaves were immediately drawn over them and loosely tied, thus preserving the milk-white color and tender texture. Cauliflowers delight in a deep rich soil with moisture."



FOWLER & WELLS CO., *Publishers.*
H. S. DRAYTON, A.M., M.D., *Editor.*

NEW YORK,
JULY, 1884.

ANCIENT MAN.

THERE are certain disadvantages under which the theory of human descent according to the Darwinists labors, and which late discoveries in the lower quaternary, or upper tertiary beds, if the latter must be accepted, do not at all remove. The opening of ancient dwellings in the chalk that lined the banks of lake or river, whose bed has been dry for ages, has brought to light a large number of human skeletons with a great quantity of bone and stone implements and flint weapons and tools. Within a few years back zealous observers like de Baye, Harvey, Dupont, Lartet, de Quatrefages, have brought into special prominence the characteristics of the men of the glacial period, or of that remote epoch when so low a temperature prevailed in Central Europe that the reindeer, the mammoth, and mountain goat roamed over the plains of France, and browsed upon the wooded slopes of Italy and Austria. In the places of burial, and in the hillside dwellings, whose rocky structure has preserved their osseous remains until our day, several types of cranial organization appear. We have

the long skull of the Canstadt type, of which the celebrated fossil of Neanderthal is a specimen, and the broad skull of the la Truchère type, which is elevated in the forehead and crown, and in horizontal contour approaches the Teutonic class of the present time. Between these two types there are three intermediate types that intimate a mixture or blending of races. In fact, in some caves, deep in valley alluvium, crania of the long and broad and mixed types have been found lying together, thus proving the claim of archæologists that distinct races of ancient peoples through conquest or friendly intercourse mingled their characteristic features.

The dolichocephalic or long-skulled race may have antedated the brachycephalic or broad-skulled race; they were smaller-brained and of inferior intelligence, their difference in the latter respect being impressed upon the bones and flints that convey to the modern student very clear suggestions of their respective advance in the industries of domestic and social life. But how long the man of Cro-Magnon or Neanderthal lived before the appearance of the man of Grenelle is but a subject of speculation as yet. They were contemporaries in the quaternary epoch of geology; and like types of development, cranial and mental, exist to-day. The man of Canstadt was as well endowed as the wild Australian, or the Bushman of South Africa; the man of Cro-Magnon is represented to-day by the American Indian, his type of head being quite the same, and the man of la Truchère has left us in the few bones that remain of him the surprising witness of a cranial capacity equal to that of the modern European.

Some archæologists are of opinion that

this large-headed man of la Truchère has a more ancient history than even the long-headed races of Canstadt and Neanderthal. M. de Quatrefages thinks so. Accept this and we are placed in a strange dilemma with regard to the alleged descent of man from the pithecoïd ape; for an immense chasm or *hiatus* exists between the dolichocephalic man and the highest anthropoid ape, the gorilla. If somewhere in the alluvial deposits of the tertiary there lie remains of an intermediate race, of an ape-man, his cranial characteristics must suggest the Canstadt type, but very much below it, and this to be true would show that there were alternations of development; that somehow the broad-headed, large-brained man succeeded the low-browed, small-brained ape-man, and was succeeded in turn by the narrow-headed race of Canstadt. Surely, this would be altogether out of keeping with the normal procedure of development, and logically impossible.

The gorilla, assumed by the Darwinist to approach nearest to man, presents another difficulty on the side of intelligence, because he is not the equal, by any means, of the chimpanzee or orang-outang in intelligence; in fact, is inferior to the dog. Can it be that nature so exhausted herself in bringing forth the ape-man that she did not endow him with the vigor necessary to withstand the cataclysms or other crises of the remote tertiary, and so he perished, leaving no trace for the gratification of the yearning Haeckelite? If so, whence came the men of the stone age, those rude contemporaries of the mammoth and hairy elephant? And how is it that the gorilla has degenerated from that high estate which must have been his, if the major

premise implied in our query be admitted?

The revelations of geology, interpreted with candor, point to the conclusion that primitive man, wherever he lived, 10,000 or 50,000 years ago, was as much man, distinctively, by physical and mental organization, as man to-day. In his needs, methods of self-preservation, his industries, wars, social and domestic habits, appreciation of ornament, sense of fear, adoration of a spiritual Power, the cave-dweller of the Drift period was the analogue of the man of the nineteenth century.

ANOTHER PANIC ON 'CHANGE.

THE recent extraordinary developments concerning the way in which money operations are conducted in Wall Street, call to mind a bit of French humor. A father says to his son, "My dear boy, the business world is divided into two camps, the gamblers and the speculators." The son rejoins, "Why, father, what difference is there between these?" "Don't you see, boy? The speculator is the one who gains. The loser is only a gambler."

The sudden suspension of a firm of brokers, in the midst of what were presumed to be very large business operations, and that had the backing of names ranking high in political and social circles, led to the prompt discovery that the business carried on by them was altogether out of the bounds of common dishonesty and deception. The audacity and success of the managing partner in persuading men with means to believe impossible schemes of financial investment, would appear altogether incredible,

if we had not the published testimony of those who lost the tens and hundreds of thousands they placed in his hands.

Of course the effect of such an announcement was to diminish public confidence in banks and brokers generally, and occasion a rush of timid investors upon their financial agents. The result is known. Many long-established banking concerns were forced to suspend, and the whole atmosphere of 'Change became dark and threatening, and for a time a general crash in every line of security seemed imminent.

Such crises in the money centres must be expected to occur so long as financial operations are conducted as they are by greedy men who seek to destroy every element of substantial value in stocks and bonds, and to make even the necessities of life their puppets, for gain's sake. There is a glamour surrounding dealings in money that is disturbing to the mental balance of most men; their acquisitive sense becomes over-excited; their benevolent, conscientious, rational senses become warped and subordinated to the selfish feelings, hence they acquire an abnormal thirst for speedy riches, and seeming opportunities for large profit draw them into the maze of speculation. Speculation is but trying the chances of fortune; so is gambling; but the speculator's stakes are larger and his game is played openly. If he win, the community applauds his success; if he lose, he is accounted an "unlucky dog"; yet that is but an incident of the "Street." If his losing involve others, then we hear of fraud and speculation—the unauthorized using of other people's money. But somehow the speculator on 'Change is not often pursued by his victim until the

prison door closes on him—because doubtless his victims feel themselves sharers of his guilt. They are willing sharers of his successful ventures, ready to smile at any "crookedness," in "put," or "call," or "straddle," or "loan," or "share," that helps to increase his bank account and to render a dividend to them. But after all, knowing as we do the tenor of "operations" in money as they are usually conducted, why should the community be startled by any convulsion in Wall Street, when banker and broker are but the agents of the community, and merely express the undercurrent of popular desire for wealth?

BE OF GOOD CHEER.

BLESSED is the cheerful spirit. It is exceedingly rare that a man possessing a sunny disposition is found in the walks of vice and crime—for the trait is diametrically opposed to practices that induce bitterness of feeling, remorse, and gloom. An immoral man may affect gaiety and sprightliness, but there is a constraint in his manner that declares its hollowness. He lacks heartiness and sincerity; his loud professions are received by those who know him as artificial and empty; there is no soul in them—nothing to warm and encourage a sinking heart.

The basis of true cheerfulness is a generous, hopeful nature, and in its practical expression it is allied with Conscientiousness. One who is weighted with a sense of having done wrong, carries a troubled conscience; and can not look out upon the world serenely and buoyantly. Hence, to cultivate cheerfulness, it is necessary to keep one's-self clean;

no stains of vice must blot the tablet of thought.

It is difficult to be always cheerful. Yes; but if the habits are pure, then one can smile in the midst of misfortunes. The consciousness of duty performed to the utmost will sustain the heart even when troubles surge over one like ocean billows. But great, overwhelming troubles rarely occur to the cheerful man. There is a saving influence, a kind of talismanic potency in his pleasant, sunny temper that often converts apparent evil into good, or blunts the sharpness of calamity.

Morally and physically the cheerful man is superior to the grave or sardonic man; his brain is fed by a quicker current from the heart; his faculties interact with more facility and effect. Hence he sees more clearly what he should do in an emergency; and if he be swept away by an overwhelming tide of misfortune his buoyant spirit helps him to struggle on and to make the most of any proffered help. The cheerful man never lacks friends, while the gloomy, melancholy one repels kind attention; and when misfortune comes to him it usually drags him to the bottom.

To all we say, cultivate cheerfulness, for with it will come happiness.

TOBACCO IN THE CHURCH.—In the *Washington Evening Star* there recently appeared the following unique advertisement:

"The prayers of God's people are most earnestly requested for the thorough purification of a young church, whose pastor and officers are inveterate tobacco-users, much against the wishes of its members."

This was evidently the irrepressible outflow of some one whose "righteous soul was vexed with the filthy" breaths of the

aforsaid pastor and officers. We are sorry for the "young church" and for many old churches on account of the tobacco habit that has enslaved their pastors and officers. Incurable agnostics or infidels, like Ingersoll for instance, delight in finding such examples for their brilliant sarcasm and reckless sophistry against Christianity. Our Methodist friends are fighting against the tobacco evil with encouraging success. Let other denominations follow their lead, and let the Church be clean. How can God be glorified in the bodies of men while they persist in practices that are conducive to indecency?

THE COURSE IN PHRENOLOGY.

THOSE who desire to enter the course of instruction in "The American Institute of Phrenology," which opens its annual session on the first Tuesday in October and continues six weeks, will, of course, be employing their spare time in reading on the subject, in order to enter all the more intelligently into the work of mastering the theory and practice of Phrenology. It is not merely the professional who intends to make it a life business, that reaps advantage from this course of instruction. Teachers, lawyers, ministers, and business men avow the great aid that a knowledge of Phrenology, learned in the Institute, has been to them. One minister, recently a student, writes with enthusiasm of the benefit which he derives from it in his pulpit labors and pastoral work.

When professional men shall learn how much a knowledge of mind and character will aid them in their several spheres of labor, the Institute will be thronged. The merchant and business man also needs to know all he may of human character to insure success in normal and laudable enterprises.

For circular setting forth terms and all other particulars, address Secretary Am. Ins. of Phrenology, 753 Broadway, N. Y.

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal matters will be considered by the Editor if this is done.

COMBATIVENESS, SELF-ESTEEM, ETC., AND BASHFULNESS.—*Question:* If a bashful person were to cultivate Combativeness, Self-esteem, and Executiveness, would he overcome his bashfulness? D. D. D.

Answer: In a very great degree, doubtless; as the manifestation of the feeling is due largely to the weakness or lack of influence on the part of those faculties.

TREATMENT OF COLDS.—E. F. F.—The treatment to be prescribed for a cold must depend upon the temperament and condition of the patient. In the outset of its development, if one take a great deal of outdoor exercise, he may bring about a reaction of the system, and so overcome the derangement of the mucous membrane. If, however, the disturbance be severe, it is best for the patient to stay at home; eat the simplest food and very little of that, but drink abundantly of hot water; take a wet-sheet pack, or a thorough sweating bath. One of the first things one should see about, when a cold has been contracted, is to clear the system as much as possible of all morbid matter, using for that purpose simple enemas.

"MAN OF PURPOSE," ETC.—J. N. L.—

The item which your letter considers was taken from a very respectable newspaper, and we felt warranted in giving it place. You do not impair the reputation of the farmer for energy and efficiency; and perhaps in your comments upon his character as known in the neighborhood, your view of him may be a little invidious. It is said, you know, that "no man is great to his valet," and "the prophet is without honor in his own country." We can infer that the person who wrote the notice of him, as it originally appeared, placed his estimate chiefly upon what he had heard of the man's energy as a working farmer.

STRONG CHARACTERISTICS.—P. S. W.

—The strong characteristics which make up the distinctive disposition of a man, are due to the influence of strong or active organs in his mental composition. You are right in your inference that these strong characteristics give the special features of one's conduct, dress, manner, etc. Take, for instance, the influence of strong Self-esteem; it renders a man erect in pose, emphatic and decided in language, assured, independent, off-hand generally; you will find the man with large and active Benevolence, kind, generous, sympathetic, and conciliatory. A man with large Approbativeness has a disposition to flatter others, and expects to be tickled in return; in fact, he fishes for good words and soft speech; he likes "sugar-coated pills," and he dresses with some regard to his appearance, so that he shall win notice and commendation. A man of large Self-esteem, unless he possesses a good degree of order and taste, may be very careless in his dress; even distress his friends by constant shabbiness.

INQUIRY ABOUT MOSES.—F. H. requests some information concerning the sixth and seventh book by Moses; perhaps some reader can enlighten him; we confess our ignorance of any works by the great Hebrew lawgiver, outside of those known in the Pentateuchal series.

PHYSICAL GROWTH.—C. E. B.—Tendencies of growth are inherent, but they can be promoted by outdoor exercises, good food, and proper habits. One who lives improperly, is given to the common vices of the day, does not sleep sufficiently, is irregular and erratic in his diet, can not be expected to grow into vigorous conditions; he will become warped and stunted in some respects. We have no doubt that the use of alcohol and tobacco suppresses normal physical development; that many a person is deprived of his heritage of height and strength by reason of early im-

prudence in these respects. Indoor life and an occupation which prevents one from exercising the limbs normally, will have some effect in retarding one's growth.

ERUPTIONS PRODUCED BY MEDICINES.

—N. Y.—Yes, some of the more popular remedies are productive of eruptions on the skin; certain constitutions being more liable to them than others. For instance, the persistent use of quinine is likely to produce an eczema or purpura. Taking iodide of potassium produces in some cases an eruption on the neck, face, and shoulders. Chloral hydrate affects the face and neck. Balsam copaiba may induce a rash which seems to prefer the ankles and wrist. The effects of calomel are well known. The quinine eruption is almost too well known to need description; it is somewhat ephemeral in its nature, disappearing soon after the person gives up his doses of quinine; it is of a bright hue, something like the rash of scarlet fever. It first appears on the face and neck, and then spreads over the body; sometimes it comes in spots, and resembles the measles; at other times it has the nature of urticaria, or itch, with some swelling, and is very annoying. Several cases of quinine purpura have been reported in the medical organs lately.

EFFECTS OF SLEEPING TOGETHER.

—J. E. M.—There is a good deal of logic and truth in the theory that injury may be sustained by one of two persons who are accustomed to sleep together. People differ in temperament, and the influence of temperament is either negative or positive. Positive natures are reflective; negative natures are absorptive. Of two persons who generally room together, the positive one, if of weakly habit, will lose elements of strength; they will be absorbed by the negative, and the result in time will be a decrease of physical energy and nervous power, which will be evident. We do not approve the practice of a sickly or weak person sleeping with a strong one. Healthy children of the same age may room together, but we should protest against an old person sleeping with a young one.

SCIENTIFIC MEN AND PHRENOLOGY.

—W. H.—Scientific thought has undergone a very considerable change in late years; even O. W. H., whom you mention, and who at one time was almost vindictive in his criticisms of Phrenology, has changed his attitude since the "Professor of the Breakfast-table" was published. We know of his having made a statement within a few years that is favorable through the doctrine of organic localization admitting that Phrenology has proved that there are fixed relations between organization and mind and character. Scientific men who are conversant with recent investigations in cerebral organization, accept generally the view that the brain is composed of different centres, having sensory or motor

functions. Instead of learned men denying the phrenological principles, the reverse is true. We rarely meet with one who does not accept them; it may be with a qualification, but nevertheless it is an acceptance.

EYE CULTURE. — F. — There are no special works on the subject to which you refer; but we would remark that the study of any branch of mechanics, especially in outdoor life, helps to expand the perceptive organs, and give them power and efficiency.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

"WHAT IS YOUR OBJECT?"—A man's actions appear in about that light in which we view them. To him who is selfish, and seeks only those things that will add to his own interests, the hearts of other men appear closed, cold, and even cruel. But to him whose heart is full of tender compassion, whose chief desire is to make others happy, and whose soul is not at rest, unless made so by kind words and deeds—to such an individual this world appears to contain an unusual number of sympathetic minds. One great object of life should be to do good, to make others happy, and this by the means and methods which are nearest at hand, which even the poorest can possess: kind words, a pleasant face and approving smile. Many a pathway has been brightened, many a dark day has been made fair, and many a lone heart, heavy and burdened almost to despair, has been gladdened and made to rejoice because of the sunshine a smile or a kind word has brought. None can feel the effect of the sun's warmth or its brightness and not be benefited, and few can experience the electrifying influences of pleasant, sociable natures, without feeling a growing amiability within their own being.

There are few positions in which a bright, cheerful disposition can have a more salutary influence than in the school-room, where one is surrounded by active, wide-awake children, ready to imitate the actions and manners of their elders. Naturally, children are close observers, and are easily affected by the dispositions of those with whom they come in contact, so that many a life-course has been mapped out and determined by the teacher. Hidden powers are daily brought to light, faculties are being developed, new ambitions are given birth, aspirations are placed upon a loftier plane, and a mind that once would have been content to revel in trivial affairs, now seeks refreshment in themes of philosophy, and loves to dwell among the theories of metaphysicians. And all this by quiet, calm influence. Would that we all might be possessed of

that power to lead others on to effort—the power of which Young says :

“ It sheds on souls susceptible of light,
The glorious dawn of an eternal day.”

It is the highest aspiration that the mind of mortal can conceive—the desire to sweeten the memories of those we love by leading their young minds to a nobler conception of life and eternity. Life, and the duties we owe ourselves and others while enjoying our sojourn in this world of beauty and happiness, are among those things most needful to our well-being.

Fame is the goal for which thousands have toiled in utter forgetfulness of the duties they owe to their fellow-men ; toiled and labored only to find themselves deserted at last by the very hopes that spurred them on. While many seek fame, greater numbers are throwing their lives away in the race for wealth, and never come to a realizing sense of the fruitlessness of all their labors until the evening of life draws nigh and they behold, with gloomy hearts, the emptiness of their purpose. Again do we ask : “ What is *your* object ? ”

JOHN L. SHAWNER.

CONVINCED.— A lake county correspondent of Illinois writes : “ When I sent you my last order for books, I thought I could not possibly afford to buy any more ; since reading the ‘ True Healing Art,’ I have concluded that I have bought my last supply of medicine, and intend to spend the next few dollars I can spare for another good book on hygienic education, because I see more truth in it than in all the ‘ science ’ of medicine. I have been poor all my life because my parents wasted their money for tea, coffee, and tobacco, animal food and condiments ; destroying their health and mine, and then paying doctors’ bills to get cured again. When I remind my father that tobacco brought the cancer to his lip, and coffee heart-disease and headache to mother, they will not believe it, and tell me I must be crazy. But let them doubt, I will believe.”

PERSONAL.

THE EMPRESS OF AUSTRIA has made herself ill by overmuch riding at Wiesbaden, and has gone to Amsterdam for the advice of a celebrated Dutch doctor. This is what might have been expected, assuming that what we have heard of her fondness for athletic sports is true.

MISS ELIZABETH PEABODY, on her eightieth birthday, received presents of rare flowers from Chicago, Indianapolis, Milwaukee, Boston, and neighboring towns, poems from friends, and ingenious handiwork from Kindergarten children, a fitting recognition of a noble and beautiful life. It

was Miss Peabody who helped most to provide Prof. Maria Mitchell with a fine telescope for her astronomical studies.

JUDAH P. BENJAMIN, the distinguished lawyer and advocate, and ex-member of the late Southern Confederacy, died in Paris, May 8. Mr. Benjamin, formerly of New Orleans, was in 1852 elected to the United States Senate, and again returned in 1858. In 1861 he withdrew from the Senate, and was appointed Attorney-General in Jefferson Davis’s Cabinet. He became the Confederate Secretary of War in February, 1862, but resigned because of the strictures passed on him by a committee of the Richmond Congress. Mr. Davis appointed him Secretary of State, a position which he retained until the collapse of the South. He then made his way to Key West, Fla., and embarking in an open sail-boat reached Nassau. In September, 1865, he arrived in London, and the next year was admitted to the bar, from which he retired February 9, 1883. He was then considered one of the foremost lawyers of England.

CHARLES O’CONOR, the eminent lawyer, died at Nantucket, May 12th last. He was a native of New York City, and born in 1804, the son of an Irish gentleman of fine culture. His parents were members of the Roman Catholic Church, and he remained loyal to it throughout his long life. He did not receive a university education, but the surroundings of his life during boyhood favored precocity and strength in developing his mental powers. When admitted to the bar, he soon made his mark among the lawyers of New York, and before he was 30 years old had won distinction. The story is told that some years ago he was engaged in an important lawsuit in which many very old people appeared as witnesses. He was struck by the fact that some of these were more than 90 years of age, and that those who owned to 60 and 70 thought themselves still young. Further inquiry brought out the fact that they were mostly from Nantucket. He made a promise that if ever he could get away from his practice and settle down to the serious business of prolonging his life he would go to Nantucket. Accordingly he made Nantucket his residence during the last years of his life, and there he died.

WISDOM.

“ Think truly, and thy thought
Shall be a fruitful seed.”

THE repose of power is its richest phase and its clearest testimony.

THE religion of Christ is peace and good-will ; the religion of Christendom is war and ill-will.—*Landor.*

To seek the redress of grievances by going to law, is like sheep running for shelter to a bramble bush.—*Dilwin.*

THE heights of early promotion and glory lift us no whit nearer heaven. It is easier to step there from the lowly vale of humiliation and sorrow.

HAVE patience awhile; slanders are not long-lived. Truth is the child of Time; ere long she shall appear to vindicate thee.—*Kant*.

OUR duty, though set about by thorns, may still be made a staff, supporting while it tortures. Cast it away, and like the prophet's wand it changes to a snake.—*Ferrol*.

THE teacher who succeeds best is he who puts his whole soul into his speech, and thus imparts his soul to others in the very process of conveying information to their understanding.—*E. P. Whipple*.

THERE are two metals, one of which is omnipotent in the cabinet, and the other in the camp—gold and iron. He that knows how to apply them both, may indeed attain the highest station, but he must know something *more* to keep it.—*Cotton*.

THE sure foundations of the State are laid in knowledge, not in ignorance; and every sneer at education, at culture, at book-learning, which is the recorded wisdom of the experience of mankind, is the demagogue's sneer at intelligent liberty, inviting national degeneracy and ruin.—*G. W. Curtis*.

MIRTH.

"A little nonsense now and then
Is relished by the wisest men."

A LITTLE boy having broken his rocking-horse the day it was bought, his mother rebuked him. He silenced her by inquiring, "What's the good of a horse till it's broke?"

A MAN made a bet that he could ride a fly-wheel in a saw-mill, and as his widow paid the bet she remarked, "William was a kind husband, but he did not know much about fly-wheels."

"USE your fork, Johnnie! Have you forgotten so soon what I told you about using your fingers?" "Well, mamma, fingers were made before forks?" "Yes, they were; but not your fingers, my son."

A MODERN philosopher thinks it is a mistake to suppose that women have stronger attachments than men. "A man," he says, "is often attached to an old hat; but who ever heard of a woman being attached to an old bonnet?"

"Do you see that fellow lounging there?" asked Bumpkins. "Yes. How does he manage to live—by his wits?" "Oh, no; he's a cannibal." "A cannibal! How?" "He lives on other people," was B.'s reply, as he vanished round the corner.

"MELICAN man him thlew pebble, blake Yong Sing window," said a complainant in Justice White's court.

"How big was the pebble?" his honor asked.

"'Bout seve'teen pound," said Yong Sing.

A TOUGH LOZENGE.—A New York doctor, while escorting a lady home one evening, gave her a troche to relieve her cough: but it had no effect. The next day she returned the suspenders button, with a note suggesting that he might need it for the coming Sunday collection.

"IF the gentleman who keeps the shoe store with a red head will return the umbrella of a young lady with whalebone ribs and an iron handle to the slate-roofed grocer's shop he will hear of something to his advantage, as the same is the gift of a deceased mother now no more, with the name engraved on it."—*Adv.*



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

BRAIN EXHAUSTION, with some Preliminary Considerations on Cerebral Dynamics. By J. Leonard Corning, M.D., Physician to the New York Neurological Infirmary. 12mo, pp. 234. New York: D. Appleton & Co.

It seems strange that it is only within thirty or forty years that cerebral conditions have obtained much attention from those whose special business it is to care for the health of people, and only within a dozen years have physicians begun to understand the relation of the brain to physical capability. How much the light that has been shed upon this subject is due to earnest phrenological observers from Willis, Gall, and Spurzheim down, it would be impossible to estimate, while to-day there are many zealous men "on both sides of the sea" who are constantly studying the brain and nervous system, and finding new data of value to psychologist and physiologist. The fact that mental action involved expenditure or loss of living material, and thus drew upon the physical energies to the extent even of producing weakness and exhaustion, was, at first, hard to be understood; but now no well-informed man denies it, and the necessity is perceived with equal clearness, of sustaining the brain that is active with adequate food elements, if its vigor is to be maintained and the functional equilibrium of the system in general is to be preserved.

The author of the work under notice has been at much pains to prepare a summary of the philosophy of cerebral action in its relation to normal and abnormal states, and also to indicate the sources of brain disease, and the most approved methods of

restoring health to the worn-out nervous system. His motive is evidently the practical one of the physician, as he presents formularies of diagnosis, and treatment that must be useful to others of his profession who have not had the time or opportunity to study in this special line of pathology. He points out with clear emphasis the effect of vicious habits and the common irregularities of society upon the brain, and also rebukes with becoming severity the reckless imposition of excessive study upon youth as practiced in many ambitious schools and colleges.

The treatment proposed is drawn, in great part, from official sources, but we can not but approve the author's spirit in attributing to rational food and rest the leading part in the procedure of cure.

HOW TO STUDY CHARACTER; or, The True Basis of the Science of Mind, including a view of Alexander Bain's criticism of the Phrenological system. By Thomas A. Hyde. Paper, 50 cents; cloth, 75 cents. Fowler & Wells Co., Publishers, 753 Broadway, New York.

The foundation of this essay appeared in two or three Numbers of THE PHRENOLOGICAL JOURNAL, so that its spirit is not altogether unknown to the reader of this magazine; but it may be assumed that the reader, of what has been submitted to his examination, will have an earnest desire to read the whole essay and to know more of Mr. Hyde's views. The object of the essay is a comparison of the older metaphysical and the present psychological and experimental methods with the phrenological system. The author comes to their consideration as a student of mind, one who, in his university career, had been led to the special examination of the laws of thought. He is not, therefore, an accidental observer, and unprepared to offer testimony. His analysis of faculty and function shows familiarity with the schools; and in his weighing of the system of introspection with the system of observation, he must be credited with candor and an earnest desire to reach the truth. An extended analysis of the oratorical type of character forms one of his illustrations of the definiteness that is attained by a true scientific procedure in the study of mind. It is keen, clear, very interesting, and full of useful suggestions to those engaged in the study of oratory or elocution. The essay is specially valuable in its analysis of Prof. Bain's attempt to formulate a system of classifying and defining faculties. It is adapted to the reading of thoughtful people; those who are desirous of obtaining sound views in regard to the constitution of the mind, and of applying correct principles in the analysis of character. A volume of this kind has a practical bearing in the philosophical discussions of the day. It helps to take the subject of mind out of the vague and mazy atmosphere which surrounds it owing to the current drift of speculation and controversy. Mr. Hyde writes earnestly and vigorously, with the spirit of a man whose mind is thoroughly pervaded with the importance of his subject, and comprehends the

value of the principles that he aims to elucidate in human life. Although a book that may be read in a few hours, it is a valuable contribution to the literature of mind and character.

THE FALLACIES IN "PROGRESS AND POVERTY," ETC.—This is a new book now in the press of the Fowler & Wells Company. Its author, Mr. William Hanson, discusses, in a series of five essays, the leading points and arguments of Henry George, in his well-known "Progress and Poverty," and "Social Problems," indicating clearly the errors of assumption and reasoning that mar those powerful books, and showing the fundamental impracticability of the methods advised by the great reformer. He also analyzes, with a keen logic, the recent work of Mr. Dunning Macleod, "Economics," and reveals its inconsistent sophistry. "The Ethics of Protection and Free Trade," constitutes one essay in which the principles of the two great parties, that stand arrayed against each other on the Tariff question, are reviewed in the light of political responsibility, and what constitutes true national progress. The final chapter, "The Industrial Problem Considered *a priori*," looks into the essential merits of the subject, and impartially points out wrong-doing and mistakes on both sides—on the part of the capitalist, and on the part of the worker—and fearlessly admonishes both with regard to their duty. The work is written for the people; is as revolutionary in sentiment, and even more radical than "Progress and Poverty" itself, but its every proposition for social reform is based upon justice, and the simple demands of pure humanity.

PUBLICATIONS RECEIVED.

SENATE DOCUMENT. Containing the report of the Committee on Woman Suffrage, including the arguments of Miss Anthony, Mrs. Shattuck, Mrs. Sewall, Mrs. Duniway, Mrs. Stewart, and others. Another strong effort in behalf of the right to vote for women.

NINETEENTH ANNUAL REPORT of the National Temperance Society and Publication House, presented at the meeting May 13, 1884. A very encouraging summary of temperance movements during the past year; containing notes relating to the cause from all parts of the country. Public sentiment seems to be stirring in earnest with regard to the great evil of liquor-trafficking.

THE COMPLETE CARRIAGE AND WAGON PAINTER. A concise compendium of the art of painting carriages, wagons, and sleighs, comprising full directions in all the various branches, including lettering, scrolling, ornamenting, striping, varnishing, coloring, with numerous recipes for mixing colors. Illustrated. An interesting mechanical subject, treated with commendable brevity, and well adapted to the use of the practical man. The illustrations are well drawn and entirely applicable to the branches of the subject mentioned in the title. Price, \$1.00. Published by M. T. Richardson.

Pears' Soap

"Matchless for the Complexion."

Adelina Potts



THE REAL SECRET OF THE WHITE ELEPHANT.

A SPECIAL PREMIUM OFFER.

MOST USEFUL BOOK EVER PUBLISHED

LATEST EDITION FROM NEW PLATES.

It is possible for a child to learn to pronounce at sight and to correctly spell a thousand Greek words without associating with one of them the thought which it is designed to embody. He may also memorize the synonyms of these words and still be unable to intelligently express the simplest thought in the symbols which have been studied.

This is much like the usual school process of memorizing abstract words and definitions. Children are compelled to learn to pronounce, spell and define thousands of words which remain almost as unintelligible and useless to them as so many uncomprehended Chinese characters. **No memorized word is useful except in so far as its meaning be clearly understood.** For the meaning of words we must consult a standard dictionary.

In view of the fact that correct spelling and pronunciation and a knowledge of the significance of words in frequent use is the greatest educational accomplishment, the importance of a National Standard Dictionary in every household can scarcely be over-estimated. We cannot think, *well*, talk fluently or write intelligibly without having acquired such a dictionary knowledge of the language to be employed.

The place for a child to begin this dictionary branch of his education is at **home**. If this fact were duly appreciated, the average intelligence of the nation would be doubled in five years by a revolution of our present deplorable process of memorizing abstract and meaningless words.

When a word that is not understood is first heard or seen is the time to "study it up" by the aid of a reliable dictionary which should be ever at hand. By thus taking one word at a time while it is associated with the object or the thought which it is designed to convey, it may be really **learned** as well as memorized, almost without effort; while to undertake to memorize a dozen or fifty such words in a lesson at school would result in the accumulation of **useless rubbish** rather than available knowledge. Not only does the accumulation of this useless rubbish destroy the child's ambition to learn and his thirst for knowledge, but it often shatters his constitution.

This is a very grave evil of our present school system which must be apparent to every intelligent and thoughtful person. But this incalculable evil cannot be remedied while a dictionary of any kind is not to be found in one household in ten the country over. Hence, to supply this need in nearly every family, the New American Dictionary and Compendium of Useful Knowledge has been prepared for the press at an enormous expense. Every word in common use is correctly spelled, phonetically pronounced and comprehensively defined.

Combined with the dictionary is an exceedingly valuable Reference Compendium of Useful Knowledge, embracing 84 different subjects. This vast amount of information which is almost as important as the dictionary itself, can be obtained nowhere else for less than five times the price of the book.

30 OF THE 84 SUBJECTS TREATED IN THE COMPENDIUM.

- 1.—Autographs of all Presidents of the United States.
- 2.—An Alphabetical list of Phrases, Words and Quotations, from ancient and modern languages, with their meaning (3 pages).
- 3.—A Complete list of Scripture Proper Names, and **how** to pronounce them, including all names in the Apocrypha (24 pages).
- 4.—Alphabetical List of American Geographical Names, with their Pronunciation, Derivation, and Meaning.
- 5.—Popular Names of States and Cities, as "Buckeye State," "Key-stone State," "Hoosier State," "Monumental City," etc., and why so called.
- 6.—How to Pronounce Difficult Words (30 pages).
- 7.—Many Valuable Suggestions on How to Speak with Elegance and Ease (24 pages).
- 8.—List of a great number of Slang and Vulgar Words and Phrases to be avoided (24 pages).
- 9.—The Declaration of Independence, in full.
- 10.—The 56 Signers of the Declaration of Independence, with their States, Ages, and Time of Death; ALSO a Fac-simile of their Signatures (Autographs).
- 11.—The Constitution of the United States, in full.
- 12.—Each year's Prices, for 53 years, of Wheat, Flour, Corn, Cotton, Beef, Hams, Butter, Sugar, Coffee, Bar and Pig Iron and Coal.
- 13.—Population of the 250 Towns

- and Cities of the United States having 10,000 inhabitants and upwards, by Official Census of 1880.
- 14.—Insolvent, Assignment, and Homestead Laws of the different States of the Union.
- 15.—Rate of Mortality, and the average number of years any one may "expect" to live after any

- 19.—Value, in United States money, of 83 Foreign Gold and Silver Coins in Circulation.
- 20.—Tables for reckoning interest at 4, 5, 6, 7, 8 and 10 per cent. from one day to one year, from \$1 to \$1,000.
- 21.—Weights and Measures of the United States and other countries.
- 22.—Chronological History of America and of the United States, from 1492 to 1881 (9 pages).
- 23.—Heads of the Principal Nations of the World, Names of Kings, Queens, etc.
- 24.—Metric System of Weights and Measures in full.
- 25.—Vocabulary of Business, giving an Interesting and Useful Explanation of 340 Words and Terms used in Business such as "ad valorem," "Broker," "Checks," "Days of Grace," "Drafts," "Ejectment," "Foreclosure," "Guarantee," "Invoice," etc., etc. (82 pages).
- 26.—Nautical Vocabulary, explaining over 400 Words and Terms used on Ships, etc. (11 pages).
- 27.—Christian (or "given") Names of Men and Women, giving their Derivation, **Meaning**, and Pronunciation of over 500 of them.
- 28.—Ancient Geographical Names of Countries, Cities, etc., etc., and their **present** names.
- 29.—How to Organize and Conduct Public Meetings. Useful Suggestions.
- 30.—Convenient Tables for Reckoning Wages.



- age, from one year old up to the age of 100 years.
- 16.—Debts, Revenues, Expenditures, Imports and Exports of the various Nations of the World.
- 17.—The Armies of each Nation of the World, their numbers and Annual Cost.
- 18.—National Debts, Expenditures and Commerce of Nations—Amount for each inhabitant.

IT IS WORTH 50 ORDINARY BOOKS

A standard and reliable dictionary such as we offer is worth more to any householder than fifty ordinary books; and the parent who fails to provide such a work for his child is depriving him of a rightful privilege which is absolutely worth a hundred times its cost. There are men, not a few, who would gladly give even a thousand dollars for what would have been learned by the

aid of such a book as the New American Dictionary, if it had been supplied to them in early life. Of course it is only by producing it for the million that it is afforded at the nominal price of \$1, postpaid; or five copies postpaid for only \$4. Ask 4 of your friends to buy one each and thus get your own book free, all postpaid and warranted to give satisfaction.

OUR SPECIAL OFFER FOR 60 DAYS.

We will send this great work as a premium to any present subscriber who will send us one new subscriber to the PHRENOLOGICAL JOURNAL for one year at \$2.00, or at \$2.25 with the premium. Remember this offer is only made for 60 days from July 1st, and will expire September 1st, 1884. Or we will send the book by mail, postpaid, on receipt of price, \$1.00. Address

FOWLER & WELLS CO., Publishers, 753 Broadway, New York.

Old Series, Vol. 79
Aug., 1884.

KNOW THYSELF.

New Series, Vol. 30
NUMBER 2.

THE PEDIATROLOGICAL JOURNAL



SCIENCE OF HEALTH

A Monthly devoted to the study of man in his mental and physical relations.

TERMS: For 1 year, \$2; 6 months, \$1; Single Numbers 20 cts.

CONTENTS.

I. The Democratic Nominees for THE PRESIDENCY. Portraits, . . .	61	Notes in Science and Agriculture.—	
II. The Trance State, or SUSPENDED ANIMATION,	67	A Preventive of Hydrophobia; Hints on Varnishing; How to Grease a Wheel; When Children Should go to School; "Queen Anne" Style in Building; Steaming and Bending Wood; The Artistic Relations of the Trance; Running a Farm; Variations of the Magnetic Pole; The Quiet Life; Meeting of the A. A. S., etc.,	105
III. Organic Cerebration, No. 3. THE SELFISH SENTIMENTS. Illustrated, .	72	Editorial Items.—The Teeth of the Future; The London Health Exhibition; A Good Example; In Egypt; Germ-ane,	109
IV. The Citadel of Gaeta. Illustrated,	77	Answers to Correspondents.—Pupil of the Eye and Emotion; Disinfecting Rooms; Describing Character; Old Objection; Language Small; Great Talker; Fruit and Speech; Miles Under the Sea; Big Heads and Little Wit; How Much to Eat; Indications of Ears; Whole-Wheat Meal for Food.—Common-Sense in Our Money; Food Reform and Longevity; The Work of the Institute, etc.,	112
V. Bishop Matthew Simpson.	78		
VI. Little Children and Old People,	81		
VII. China: ITS AGE, GOVERNMENT, AND SOCIAL CUSTOMS. Illustrated.	82		
VIII. Two Teachers' Methods,	86		
IX. Oil in the Home,	90		
X. A Plea for the Girls,	92		
XI. Trichinosis. Illustrated,	95		
XII. Milk from the Hygienic View,	99		
XIII. The Care of the Sick,	100		

ENTERED AT THE POST-OFFICE AT NEW YORK AS SECOND-CLASS MATTER.
FOWLER & WELLS CO., Publishers, 753 Broadway, New York.
 L. N. FOWLER, Imperial Buildings, London, England.

A SPECIAL PREMIUM OFFER.

MOST USEFUL BOOK EVER PUBLISHED

LATEST EDITION FROM NEW PLATES.

It is possible for a child to learn to pronounce at sight and to correctly spell a thousand Greek words without associating with one of them the thought which it is designed to embody. He may also memorize the synonyms of these words and still be unable to intelligently express the simplest thought in the symbols which have been studied.

This is much like the usual school process of memorizing abstract words and definitions. Children are compelled to learn to pronounce, spell and define thousands of words which remain almost as unintelligible and useless to them as so many uncomprehended Chinese characters. **No memorized word is useful except in so far as its meaning is clearly understood.** For the meaning of words we must consult a standard dictionary.

In view of the fact that correct spelling and pronunciation and a knowledge of the significance of words in frequent use is the greatest educational accomplishment, the importance of a National Standard Dictionary in every household can scarcely be overestimated. We cannot think, all talk fluently or write intelligibly without having acquired such a dictionary knowledge of the language to be employed.

The place for a child to begin this dictionary branch of his education is at home. If this fact were duly appreciated, the average intelligence of the nation would be doubled in five years by a revolution of our present deplorable process of memorizing abstract and meaningless words.

When a word that is not understood is first heard or seen is the time to "study it up" by the aid of a reliable dictionary which should be ever at hand. By thus taking one word at a time while it is associated with the object or the thought which it is designed to convey, it may be really learned as well as memorized, almost without effort; while to undertake to memorize a dozen or fifty such words in a lesson at school would result in the accumulation of useless rubbish, rather than available knowledge. Not only does the accumulation of this useless rubbish destroy the child's ambition to learn and his thirst for knowledge, but it often shatters his constitution.

This is a very grave evil of our present school system which must be apparent to every intelligent and thoughtful person. But this incalculable evil cannot be remedied while a dictionary of any kind is not to be found in one household in ten the country over. Hence, to supply this need in nearly every family, the New American Dictionary and Compendium of Useful Knowledge has been prepared for the press at an enormous expense. Every word in common use is correctly spelled, phonetically pronounced and comprehensively defined.

Combined with the dictionary is an exceedingly valuable Reference Compendium of Useful Knowledge, embracing 84 different subjects. This vast amount of information which is almost as important as the dictionary itself, can be obtained nowhere else for less than five times the price of the book.

30 OF THE 84 SUBJECTS TREATED IN THE COMPENDIUM.

- 1.—Autographs of all Presidents of the United States.
- 2.—An Alphabetical list of Phrases, Words and Quotations, from ancient and modern languages, with their meaning (9 pages).
- 3.—A Complete list of Scripture Proper Names, and how to pronounce them, including all names in the Apocrypha (24 pages).
- 4.—Alphabetical List of American Geographical Names, with their Pronunciation, Derivation, and Meaning.
- 5.—Popular Names of States and Cities, as "Buckeye State," "Key-stone State," "Hoosier State," "Monumental City," etc., and why so called.
- 6.—How to Pronounce Difficult Words (30 pages).
- 7.—Many Valuable Suggestions on How to Speak with Elegance and Ease (24 pages).
- 8.—List of a great number of Slang and Vulgar Words and Phrases to be avoided (24 pages).
- 9.—The Declaration of Independence, in full.
- 10.—The 56 Signers of the Declaration of Independence, with their States, Ages, and Time of Death; ALSO a Fac-simile of their Signatures (Autographs).
- 11.—The Constitution of the United States, in full.
- 12.—Each year's Prices, for 53 years, of Wheat, Flour, Corn, Cotton, Beef, Hams, Butter, Sugar, Coffee, Bar and Pig Iron and Coal.
- 13.—Population of the 250 Towns

- and Cities of the United States having 10,000 inhabitants and upwards, by Official Census of 1880.
- 14.—Insolvent, Assignment, and Homestead Laws of the different States of the Union.
- 15.—Rate of Mortality, and the average number of years any one may "expect" to live after any

- 16.—Value, in United States money, of 83 Foreign Gold and Silver Coins in Circulation.
- 17.—Tables for reckoning interest at 4, 5, 6, 7, 8 and 10 per cent, from one day to one year, from \$1 to \$1,000.
- 18.—Weights and Measures of the United States and other countries.
- 19.—Chronological History of America and of the United States, from 1492 to 1881 (9 pages).
- 20.—Heads of the Principal Nations of the World, Names of Kings, Queens, etc.
- 21.—Metric System of Weights and Measures in full.
- 22.—Vocabulary of Business, giving an interesting and useful Explanation of 340 Words and Terms used in Business such as "ad valorem," "Broker," "Checks," "Days of Grace," "Drafts," "Ejectments," "Foreclosure," "Guarantee," "Invoice," etc., etc. (84 pages).
- 23.—Nautical Vocabulary, explaining over 400 Words and Terms used on Ships, etc. (11 pages).
- 24.—Christian (or "given") Names of Men and Women, giving their Derivation, Meaning, and Pronunciation of over 500 of them.
- 25.—Ancient Geographical Names of Countries, Cities, etc., etc., and their present names.
- 26.—How to Organize and Conduct Public Meetings. Useful Suggestions.
- 27.—Convenient Tables for Reckoning Wages.



IT IS WORTH 50 ORDINARY BOOKS

A standard and reliable dictionary such as we offer is worth more to any householder than fifty ordinary books; and the parent who fails to provide such a work for his child is depriving him of a rightful privilege which is absolutely worth a hundred times its cost. There are men not a few, who would gladly give even a thousand dollars for what would have been learned by the

aid of such a book as the New American Dictionary, if it had been supplied to them in early life. Of course it is only by producing it for the million that it is afforded at the nominal price of \$1, postpaid; or five copies postpaid for only \$4. Ask 4 of your friends to buy one each and thus get your own book free, all postpaid and warranted to give satisfaction.

OUR SPECIAL OFFER FOR 60 DAYS.

We will send this great work as a premium to any present subscriber who will send us one new subscriber to the PHRENOLOGICAL JOURNAL for one year at \$2.00, or at \$2.25 with the premium. Remember this offer is only made for 60 days from July 1st, and will expire September 1st, 1884. Or we will send the book by mail, postpaid, on receipt of price, \$1.00. Address

FOWLER & WELLS CO., Publishers, 753 Broadway, New York.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 79. 1884.

NUMBER 2.]

August, 1884.

[WHOLE No. 548.



STEPHEN GROVER CLEVELAND.

THE DEMOCRATIC CANDIDATES FOR PRESIDENT AND VICE-PRESIDENT.

IN Chicago, a month later, the great Democratic party followed the Republican in forming its ticket for the contest of next November. Similar scenes of vast assemblage, of boisterous and turbu-

lent enthusiasm for favorite names were witnessed in the Exposition building. An indifferent looker-on would think that the selection of a candidate for high office depended largely upon the amount of shout-

ing and stamping, hat waving and handkerchief shaking that the announcement of his name produced. There are whisperings that large bodies of men are hired to shout for this or that name, and that noisy demonstrations of applaud are a part of the regular business of a political convention. Perhaps this is "the fun of the thing," and it relieves the stress that men must feel who are empowered with so important a trust as that of selecting the candidates for the suffrages of many millions of free men.

It must be owned that the 820 delegates who were present on this occasion appeared generally appreciative of the grave responsibility resting upon them. The ticket of the Republicans is a strong one, although there may be a large number of persons whose affiliation has been with that party heretofore, but whose dissatisfaction with the ticket might lead them to vote for the candidates of their old political opponents. To catch the votes of the disaffected would be a great achievement; it would decide the contest. Hence, we think that in spite of the operation of the "machine" and the cracking of the party leader's whip the majority of the men in the convention felt the need of care, lest a great mistake should be made, and a manifest advantage lost.

Well, the Democrats have spoken their minds on the important questions of national policy, and formulated the views that they would have presented to the people by the men who are to work the districts in behalf of their nominees for President and Vice-President. The two mighty parties have, to use a legal phrase, "joined issue," and the months of September and October will behold them arrayed in wordy warfare all over our country. The shouting of the Chicago conventions is but a prelude to the harangues of the stump orators and the hurrahs of their excited audiences that will be heard in every town.

But what of the men whose names are to be borne on the standard of party Democracy wherever the conflict tends? First let us consider the candidate for the Presidency.

STEPHEN GROVER CLEVELAND.

The impression that this portrait makes (we have never seen the original), is that of excellent health and great vital power. That capacious chest indicates health, strength, endurance, vigor, and the basis of long life. That massive face, that large neck and double-chin, mean vitality, and the foundation for hard work if it be required.

The relatively small features as compared with the large face and body, indicate a resemblance to his mother; and as we have often elsewhere said, it is favorable for the daughter to resemble the father, and for the son to resemble the mother. The forehead is also evidently inherited from the mother's side. The lower part of it, in which is located the organs of perception and practical talent, is amply developed, and he ought to be a man of facts and affairs, with a knowledge of things and qualities and quantities; so that whatever external matter is presented to his observation, he is likely to take it all in and appreciate it readily.

He has the sign of good memory in relation to historic facts and daily experience, and he ought to be capable of carrying in his mind much detail and practical matter. His Language appears to be rather large, hence he ought to be free, if not copious in conversation and speech; but with such a temperament, indicating more animal vigor than mental excitability, it is presumed that it would require considerable to get him excited and warmed up to freedom of oratorical speech. The upper part of his forehead is full in the centre especially, showing the tendency to criticise, analyze, discriminate, comprehend character and motive, and ready in estimating strangers. He has more Benevolent sympathy than he has of Imitation and Agreeableness, and he is, therefore, less inclined than some to copy, and conform, and adapt himself to the company he is in, and not so much disposed as many to say smooth and pliable and agreeable things; and while we would not regard

him as being sharp, censorious, and stinging in his dissent and reproof, he might be considered curt, positive, and absolute in his expression. If such an organization were to become fixed in reference to the accomplishment of a purpose, though he might not wage a very sharp warfare, he would be sturdy and unmal-leable. We do not see in him the tendency to be coaxed and molded, or the disposition on his part to soothe, and modify, and lead others; he would naturally take a course that seemed to him proper, and sturdily stem the current.

He seems rather more conservative than brave or rash; not inclined to ride the wave of enthusiasm, or be turned aside from his course by adverse conditions. He appears to have a temperament and organization frequently seen among the solid German or English people.

His head seems to be massive from side to side above and about the ears; hence we infer that Combativeness, Destructiveness, Alimentiveness, Acquisitiveness, and Secretiveness are strong, with a good degree of Cautiousness; and while his temper is not fiery, it is stern, steady, and hot when aroused.

He has a full development of the moral region, indicating reverence, integrity, hope, and generosity, but the great strength of his head lies along the brow, and across through the middle section in the region of executiveness, economy, and adaptation to affairs. He would make a good business man, and be capable of moving with steady strength in the path he adopts, and win his successes, so far as he is concerned, by means of uniform and unflinching pressure, rather than by gallantry and dash. As the back head is not fully presented, we judge by the face that his friendships are strong rather than ardent, and that his whole character is comparatively calm, thorough, earnest, practical, and sensible rather than brilliant, daring, or enthusiastic. He should be known for good common sense, knowledge of things rather than of theories or logical forms

of thought; sound judgment of business matters, especially its economics, with calm, consistent friendship and fair self-reliance.

Stephen Grover Cleveland is a comparatively new man in politics, and his rise to a position of such great prominence as to warrant the presentation of his name for the highest office in the American Republic, has been extraordinarily rapid. His life has been a simple one. A few years ago he had scarcely been heard of outside of the city of Buffalo, where he lived. Yet to-day his name is on every lip. When the Democratic Convention assembled in Chicago, it was already intimated that he would carry off the prize of the nomination, although there were men of great strength and veterans in the service of the nation who had large followings and deserved well of their party.

Mr. Cleveland's parentage belongs to early Connecticut history, and is eminently respectable. His father, Richard F. Cleveland, was a Presbyterian minister, and while in charge of the parish at Caldwell, Essex County, New Jersey, Stephen Grover was born on the 18th of March, 1837. He was the fifth of nine children, and as the father's income was small, he, like his brothers, had to go to work early. Grover was for a time employed in a store in Fayetteville, N. Y., where his father was settled for a few years, and later he attended an academy in Clinton. On leaving school he was a teacher in the Asylum for the Blind in New York City for a short time, and then, at the age of seventeen, at the instance of a friend he set out for the West, intending to go to Cleveland, Ohio. But stopping at Buffalo to visit his uncle, Lewis F. Allen, he was persuaded to settle there. He began the study of law in the office of Rogers, Bowen & Rogers, and in 1859 was admitted to the Bar. While a student of law he earned money for his support by assisting on a stock-farm near Buffalo. During the winter and summer he walked to and from the city, until he was able to take his certificate of membership of the Bar.

Three years later he was appointed Assistant District Attorney, and in 1865 the Democrats nominated him for the office of District Attorney; but he was beaten by the Republican candidate, Mr. L. K. Bass. The next year Mr. Cleveland formed a law partnership with I. V. Vanderpoel, but it was dissolved a few months later by Mr. Vanderpoel's elevation to a police justiceship. Then he became a member of the firm of Laning, Cleveland & Folsom, the head of which was the late State Senator A. P. Laning. Mr. Cleveland left his place in this firm in 1870, when he was elected sheriff of the county for a term of three years. On quitting that office he joined his old antagonist, Mr. Bass, and W. S. Bissell, in forming a new law firm, of which he became the head a few years later, on Mr. Bass's removal to New York.

In 1880 the politics of Buffalo became much mixed. Dissatisfaction arose in the Republican party, and a spirit of revolt against the old managers of party affairs, while the Democrats sought to make as much as they could out of the muddle. The following year there was a great and general cry for "Reform," and Mr. Cleveland was elected Mayor of the city by a combination of Democrats and Republicans, Buffalo being normally a strongly Republican city. His majority was a little more than 5,000. In his administration of the mayoralty he professed to pursue an independent and "reform" course, coming often into conflict with the Common Council and breaking the traditions of the office without hesitation. By vetoing a number of measures which, he charged, were tainted with jobbery, he gained a reputation as a reformer and a friend of economy in the public service. It is said that he saved to the city \$800,000 on a single sewer contract and \$109,000 on a contract for cleaning the streets. During the first six months of his term he saved to the city almost \$1,000,000 by rejecting jobs gotten up in the interest of small officials, and this was the foundation of his title of the "Reform Mayor of Buffalo." He went

out of the office at the end of his term with more friends and stronger friends than he had when he went in, and he had made enemies, of course, but they were of that kind who are more to a man's honor than to his discredit.

Out of the good work he had done for Buffalo grew the popular favor that gave him the Democratic nomination for Governor in 1882. He went into office with the phenomenal majority of 196,000—a "tidal wave" of political action never known in the State before. The "reform" Mayor was expected to be a "reform" Governor; yet the calm, practical, and sound inaugural that he delivered when assuming the office at Albany in the beginning of 1883 promised little or nothing as to what he would do. He, however, has done much for his State. The same principles, simple and clear, that were illustrated in his discharge of the duties of Mayor, have found exemplification in his Governorship. He has vetoed many bills sent to him by the Legislature, but with each veto he returned a reason so convincing that not one rejected bill has been passed over his protest. As he had been his own city counsellor while Mayor of Buffalo, so he is his own Attorney-General while Governor of the State.

THOMAS ANDREWS HENDRICKS.

The portrait before us of the nominee for Vice-President is one that invites attention at first sight; the expression is that of culture and refinement, of affability and pride. There are characteristics of feature that remind us of the late Charles Sumner. Yet in many important questions of national policy, Mr. Hendricks' position is the diametric opposite to that maintained by the great statesman of Massachusetts.

The head is large, and specially developed in the anterior lobes; the profile of the brow is fine, showing a marked fullness and height of forehead. There is a tendency of dominance in the reasoning faculties, a natural resultant of the

special use that his intellect has in his professional and political relations. He was ever skilful in argument, close in analysis, keen in the determination of the application of evidence and illustration to disputed points, but with years his power as a reasoner has grown, and his breadth of judgment and command of principle have become greater. He possesses a

and so also is Hope. We would infer from the indications of temperament and of the moral organs that Mr. Hendricks has been known generally for kindness, cheerfulness, and a sanguine nature. There is breadth between the temples, showing ability in planning and organizing, lively appreciation of everything conducive to refinement and taste, a high



THOMAS ANDREWS HENDRICKS.

prompt, well-poised, serene mind. He has the dignity and spirit, the self-respect and decision that arise from mental culture, rather than from original gifts of large Self-esteem and Firmness. His Benevolence is strong and influential, rendering him warm and tender in his sympathies, moderate and forbearing in his judgment of others who offend or injure him. Veneration is large in his head

esteem for the poetical and artistic. The region of the ears is also well filled out, so that he should be known as a man of force, thoroughness in action, purposeful and desirous to accomplish his purposes. At the same time he is prudent, circumspect, politic, sagacious. His social nature, we think, is subject to his intellect. His leanings as a friend, as a member of society are controlled by his judgment of

the right and expedient. His sympathy and kindness render him tender and considerate, but he never loses sight of the expedient and the demands of propriety as a man and a neighbor. His opinions are firmly held, and earnestly defended if necessary. His ambitions are high, and consequently he sets much store by the successful accomplishment of his purposes and in the assertion of his individuality.

Ex-Governor Hendricks, of Indiana, the Democratic candidate for Vice-President, was born in Muskingum County, O., on Sept. 7, 1819. His father, who possessed a moderate fortune, and considerable influence in the Presbyterian Church, removed to Shelby County, Ind., when Thomas was but three years old. He received a thorough education, and in 1841 he graduated from Hanover College. He then studied law at Chambersburg, Pa., and was admitted to the Bar in 1843. He returned to Indiana, where he made marked success in his profession. By hard work and economy he slowly accumulated a moderate fortune and took an active part in politics. As a lawyer he was distinguished for learning, subtlety, and eloquence. In 1848 Mr. Hendricks was chosen a member of the State Legislature, and two years later he served in the State Constitutional Convention. For the next five years he represented the Indianapolis District in Congress, and for four years afterward he was Commissioner of the General Land Office. He ran for Governor against Henry S. Lane in the memorable campaign of 1860 and was defeated. There was a political revolution in 1862 and Indiana elected a Democratic Legislature. At that time Mr. Hendricks was chosen United States Senator for the term ending March, 1869. He served in the Committees on Claims, Public Buildings and Grounds, the Judiciary, Public Lands and Naval Affairs. This was a period during which the Democratic party in the Senate was represented by a weak minority. Mr. Hendricks at once took the lead among the Democrats and made for himself a national reputation. During the war he was believed to be in

sympathy with the large "copperhead" element in Indiana. In 1862, while presiding over a State convention, he severely denounced the war party. In the Senate Chamber he opposed the repeal of the Fugitive Slave law and the Constitutional Amendment abolishing slavery. He was active in opposition to the measures overturning the old State Governments, the imposition of test oaths, the Civil Rights bill, the Freedman's Bureau bill and kindred legislation. He shaped his political conduct upon the theory that the prosperity of the white people of the South, even though they had been rebels, was a matter of more importance than the prosperity of the negroes. If either race was to go to the wall he thought it should be the black race; but he held that the natural supremacy of the white race was a guarantee for all. His arguments on the great questions of the day have been widely adopted as the authoritative statement of Democratic opinion in the summaries of Congressional debate. In the memorable episode of the President's impeachment he played an important part and added to his reputation as an able lawyer.

Mr. Hendricks was a candidate for Presidential honors in 1868, his chief Western rival being Mr. Pendleton. In the National Convention that year, the vote of New York was cast for Hendricks at a critical moment. Thereafter the Indiana Senator became identified with the Greenback movement, and he opposed the bill guaranteeing the payment of the National debt in coin. In 1872 he was elected Governor of Indiana for four years. He was the only man on the State ticket of his party elected. As chairman of a Democratic State Convention in 1874, he deprecated legislating for resumption.

In 1876 he was nominated for Vice-President because of his inflation views and popularity in Indiana, Mr. Tilden being given first place. The contest that followed is one of the most memorable in our national history, its final decision being made through the arbitrament of the Supreme Court.

THE TRANCE STATE; OR, SUSPENDED ANIMATION.

A LATE writer, Mr. Ainslee, reviews this subject, now becoming a topic of interest in scientific circles, and puts together several well-authenticated cases. From his article we copy the following extracts:

"The mysteries connected with the trance and other forms of apparent death is a phenomenon that can not fail to appeal to wonder-loving minds. Occasionally a case of premature burial sends a thrill of horror through the community; but the lesson which it teaches, that less haste should be manifested in committing deceased persons to their silent homes, does not seem to have been heeded, and under the present custom the body is hardly cold ere the undertaker is called to perform his sad office. We lately heard a physician say that in a course of medical lectures an eminent professor enjoined most earnestly and solemnly upon his students that they should never presume to decide positively that any person is dead till that infallible evidence, mortification, appeared. There have been numerous cases where all the ordinary tokens of death failed to tell the reality, and vitality has been developed into restorative action, and life has been continued for years.

"The ancient Greeks and Romans took warning from similar occurrences, and prohibited the early burial of the dead. The first recorded instance of the recovery to life of an individual about to be buried was that of a woman in Agrigentum, in ancient Greece, whose funeral was arrested by Empedocles, a man of great medical skill, and she was restored to life. After this a law was passed forbidding interment of deceased persons until three days had elapsed. Custom extended this period to the sixth or seventh day, during which precautions were taken to restore animation, if it was simply suspended, and often with effect.

"The Romans also had their attention turned to this matter in the time of Pom-

pey, by a physician who detected signs of life in a person supposed to be dead, who was on a funeral pyre which had already been lighted. The flames were extinguished and the individual was resuscitated. Aviola, another Roman, was less fortunate. Having fallen in a lethargic fit, he was taken up for dead; his funeral pile was erected, the flames were lighted, and Aviola was placed upon it. Quickly animation, which had only been suspended, was revived by the heat, and he attempted to arise. The spectators, who had retired a little to witness the spectacle, rushed to save him, but they were too late. He was killed by the flames. The prætor Lamia had a similar fate; and the life of Tubero, who had formerly been prætor, was saved by signs of a return to life being discovered just as he was about to be laid upon the pile.

"In consequence of these examples the Romans increased the interval between death and burial, and scrutinized more closely the signs of dissolution. Custom as well as law required that after decease the nearest relative should clothe the eyes of the deceased. The body was then bathed with warm water, with the twofold purpose of rendering it fitter to be anointed with oil, if really dead, or reanimating it if the principle of life was merely suspended. Tests were from time to time applied to see if death had taken place, and after a variety of ceremonies, which were continued for seven or eight days, the body was carried to the funeral pile and burned in the midst of a concourse of relatives and friends, who marched thrice around the pyre, and frequently offered libations to the gods, asking their aid quickly to consume it.

"Cases are occasionally recorded by physicians where persons have been restored to consciousness by the probing of the anatomical knife, and who recovered their health and lived for years thereafter. One medical writer, Bruhier, in a dissertation upon the uncertainty of

the signs of death and the danger of precipitate burials, has collected one hundred and eighty cases in which persons still living were treated as dead. Fifty-two of these were actually buried alive, four were opened before death, fifty-three revived spontaneously after being placed in their coffins, and seventy-two were supposed to have died when they really had not.

"In Greece at the present day the last journey follows quickly upon death. The next day at dawn the train of white-robed priests and choristers may be seen winding along the road toward the church. There dressed as in life, and having the face uncovered, the dead lie at rest before the altar until the moment arrives when they must be committed to the earth. It is in the church that the last farewell is given. What of that terrible last journey in the cold North, where the dying Esquimaux is built up in his snow-house and left to die alone? Or of the African tribe, who bury their hopelessly sick before death—hurry them out of the world altogether? They have been described as taking an affectionate leave of their relatives, and performing this burying with the consent of the person chiefly concerned.

"One of the most remarkable experiences of trance on record, and which has passed into history as perfectly authentic, is the case of the Rev. William Tennent, who was pastor of the Presbyterian Church at Freehold, New Jersey, where he died a hundred years ago. We learn from the 'Memoirs of his Life,' that after a regular course of study in theology Mr. Tennent was preparing for his examination by the Presbytery as a candidate for the Gospel ministry. His intense application affected his health, and brought on a pain in his breast and a slight hectic. He soon became emaciated, and at length was like a living skeleton. His life was now threatened. He was attended by a physician, a young man who was attached to him by the strictest and warmest friendship. He grew worse and worse, till little hope of life was left. In this

situation his spirits failed him, and he began to entertain doubts of his final happiness. He was conversing one morning with his brother in Latin, on the state of his soul, when he fainted and died away. After the usual time he was laid out on a board, according to the common practice of the country, and the neighborhood were invited to attend his funeral on the next day.

"In the evening his physician and friend returned from a ride into the country, and was afflicted beyond measure at the news of his death. He could not be persuaded that it was certain; and, on being told that one of the persons who had assisted in laying out the body thought he had observed a little tremor of the flesh under the arm, although the body was cold and stiff, he endeavored to ascertain the fact. He first put his own hand into warm water to make it as sensible as possible, and then felt under the arm and at the heart, and affirmed that he felt an unusual warmth, though no one else could. He had the body restored to a warm bed, and insisted that the people who had been invited to the funeral should be requested not to attend. To this the brother objected as absurd, the eyes being sunk, the lips discolored, and the whole body cold and stiff. However, the doctor finally prevailed, and all probable means were used to discover symptoms of returning life. But the third day arrived, and no hopes were entertained of success but by the doctor, who never left him night nor day. The people were again invited, and assembled to attend the funeral. The doctor still objected, and at last confined his request for delay to one hour, then to half an hour, and finally to a quarter of an hour. He had discovered that the tongue was much swollen, and threatened to crack. He was endeavoring to soften it by some emollient ointment put upon it with a feather, when the brother came in about the expiration of the last period, and mistaking what the doctor was doing for an attempt to feed him manifested some resentment, and said, in a spirited tone: 'It is shameful to be feeding a life-

less corpse'; and insisted with earnestness that the funeral should immediately proceed. At this critical and important moment the body, to the great alarm and astonishment of all present, opened its eyes, gave a dreadful groan, and sank again into apparent death.

"This put an end to all thoughts of burying him, and every effort was again employed in hopes of bringing about a speedy resuscitation. In about an hour the eyes again opened, a heavy groan proceeded from the body, and again all appearance of animation vanished. In another hour life seemed to return with more power, and a complete revival took place, to the great joy of the family and friends, and to the no small astonishment and conviction of the very many who had been ridiculing the idea of restoring to life a dead body.

"Mr. Tennent continued in so weak and low a state for six weeks that great doubts were entertained of his final recovery. However, after that period he recovered much faster; but it was about twelve months before he was completely restored. After he was able to walk the room and to take notice of what passed around him, on a Sunday afternoon, his sister, who had stayed from church to attend him, was reading in the Bible, when he took notice of it, and asked her what she had in her hand. She answered that she was reading the Bible. He replied, 'What is the Bible? I know not what you mean.' This affected the sister so much that she burst into tears, and informed him that he was once well acquainted with it. On her reporting this to the brother when he returned, Mr. Tennent was found, upon examination, to be totally ignorant of every transaction of his life previous to his sickness. He could not read a single word, neither did he seem to have an idea of what it meant. As soon as he became capable of attention he was taught to read and write, as children are usually taught, and afterward began to learn the Latin language under the tuition of his brother. One day, as he was reciting a lesson in Cornelius

Nepos, he suddenly started, clapped his hand to his head, as if something had hurt him, and made a pause. His brother asked him what was the matter; he said he felt a sudden shock in his head, and it now seemed to him as if he had read that book before. By degrees his recollection was restored, and he could speak the Latin as fluently as before his sickness. His memory so completely revived that he gained a perfect knowledge of the past transactions of his life, as if no difficulty had previously occurred. This event, at the time, excited much interest and comment, and afforded not only matter of serious contemplation to the devout Christian, especially when connected with what follows in this narration, but furnished a subject of deep investigation and learned inquiry to the real philosopher and curious anatomist.

"When some startling case of mystery like the above agitates a community, and the question is whether a certain person was dead or not, it is astonishing to find how many well-authenticated instances there are of persons erroneously reported dead. A man is alive in Boston to-day who was supposed to be dead when on board a ship returning home, and preparations were made for his burial in the deep. He knew everything that was going on around him, but could make no sign of life. The preparations went on, and he was actually lowered over the side of the ship, when he felt that he must make the last desperate effort to bring the mind to act in the body, and he succeeded in lifting his hand. This motion arrested attention, he was taken into the ship again, and was restored to health. Marvellous is the fact of this knowledge of outward things, when the mind seems locked up, and not a single sense reports the news of the outward world!

"For more than twenty years the extraordinary case of Susan C. Godsey, better known as the 'Sleeping Beauty,' has puzzled the most eminent physicians of this country and Europe. She was born in Obion County, Tennessee, just across the State line, and about six miles from

Hickman, Kentucky. Her parents were extremely poor, and lived in a small log-house containing only one room. Until eight years of age the girl was strong and healthy, and seemed in nowise remarkable. At that age, however, she was stricken with fever, but was attended by an experienced physician who soon checked the disease. The girl sunk into a slumber which lasted an unusually long time, and finally awoke weak, but well. To the surprise of the family and physicians she remained awake but a few minutes, when she again went to sleep. From that time forward, a period of more than twenty-one years, she was never awake more than three minutes at a time. When her remarkable condition became known, physicians flocked from all parts of the country to see her, and none were able satisfactorily to account for the phenomenon, although many theories were advanced. One physician who visited her continually for sixteen years, frankly confessed that he could form no opinion regarding the cause.

"Mrs. Lydia M. Child gives an instance of an aged friend of hers, whose story she had from her own lips. To all appearance she was lifeless. No impression could be made on the rigid form; sight, hearing, touch, taste, and smell, all seemed dead. Yet she revived, and afterward told her thoughts and feelings while her body was in that strange state. She told all that had been done in the room, all that had been said, and the very expressions of the countenances of her friends! She said she seemed to be standing by her own body—out of it—witnessing, as a spectator, all that the friends and physicians were doing to resuscitate it! Ah, we are fearfully and wonderfully made!

"I, for one, can not put away the conviction that more persons might be recovered from deathlike trances could the friends be willing to do cautiously and perseveringly, winning life back by gentle and long-continued efforts. Who has not known cases of drowned persons having been recovered by the labors of love of some one more patient, gentle,

and quiet than the rest? There is too little presence of mind and common-sense in cases of extreme difficulty.

"A superstitious fear of dealing with the dead sometimes prevents the employment of remedial means that promise to bring into activity suspended animation. It is lamentable to see a fear of doing with or for the seeming dead where no contagion can be feared. 'What has Death wrought that should make the body fearful? What magic does it possess? Voiceless beauty! what harm can come from thee? Why should we not sit by thy side, and yearn to read the meaning of that calm repose, that holy serenity?'

"The prophet Elisha affords us an example where he hurried to the house in Shunem in which the beautiful child lay, mourned as the dead. The boy had been out with the harvesters in the field, and sporting there he had become overheated; he felt his brain whirling, as it were, and cried, 'Oh, my head!' was borne home and at last laid on the couch in the prophet's room. Elisha came; he went in alone; he prayed to God, and then he went to the couch and bowed over the child, to impart his own warmth and vitality; and restored the boy to health. So in the case of Eutychus, the young man who fell asleep while Paul was preaching, being wearied, and fell from the third loft and was taken up dead. Paul went down and fell on him, and embracing him, said: 'Trouble not yourselves, for his life is in him,' with the result to his restoration. In neither of these cases is a miracle claimed to have been performed; but in both of them we see an unshrinking embrace of the lifeless body, and a perfect quietness of procedure, a pious and a Christian presence of mind.

"The conditions of persons in sleep are four: Unconscious and passive, as in *sound sleep*. Conscious, yet passive, as in *dreaming*. Conscious and willing, yet powerless, as in *nightmare*. Unconscious, yet active, as in *somnambulism*. And yet beyond this there seems to be a state of

apathetic body and oblivious mind, while life is still present, running like the far-hidden stream whose existence only the poet imagines. Such are some of the cases where premature burial has taken place. One of the most astonishing cases of seeming death is undoubtedly that of Colonel Townsend, who could feign death and so apparently die that attending physicians at last concluded that he had carried his imitations too far, and had really died, like the actress who really became old and died of premature age by playing the part of the old and infirm. Colonel Townsend could become motionless, rigid, and cold; a glassy film would overspread the eyes, and not a sign of vapor could be traced on the mirror when held to his mouth. During the continuance of this trance consciousness was entirely gone, and yet Townsend had the faculty of *self-reanimation*! Celsus mentions a priest who could do the like of this modern imitator of death. In an old *Spectator* is the advertisement of a certain Nicholas Hart, who made an exhibition of himself as a singular sleeper. The powder of white hellebore was once blown into the nostrils of one Elizabeth Parker to wake her from a similar sleep; but it only excoriated the skin of her nose, lips, and face, and showed the inhumanity of the doers of the deed.

"Every medical work that has a chapter on trances and death gives unquestionable cases of persons buried alive; persons who, like John Scott and the Emperor Zeno, came not only to life, but gave evidence of power of action. Among the ancients a certain time was appropriated during which loud noises by cries and musical instruments were made by the side of an inanimate body. Plato, Asclepiades, and Pliny relate instances of the seeming dead being restored in the sepulchre or on the funeral pile. The Jews had many regulations, for though, from fear of pestilential diseases, inhumation was decreed by the Talmud to take place before a night should pass, many Rabbis maintain that the utmost care should be taken to ascertain the actual presence of

death, and that it was an erroneous interpretation of the Talmud that clung so to the letter.

"Among the most singular instances of remarkable recovery cited in many works is that of François de Ceville, a French captain, who was missing at the siege of Rouen. At the storming of the town he was supposed to have been killed, and with others was thrown into a ditch, where he remained from eleven in the morning to half-past six in the evening, when his servant, observing some heat, carried his body into the house. For five days and nights no signs of life were given, though the body remained warm. At the end of that time the town was carried by storm; the besiegers entering the house where the body lay, regarded it as a corpse, and threw it out of the window; it fell on soft earth. Here it lay senseless for three days, when it was found and taken up by his relations for burial, but it was ultimately brought to life! After his recovery Ceville used to sign his name with the addition of, 'three times born, three times buried, and three times risen from the dead by the grace of God,' as remarkable circumstances having attended his birth as his recovery from the ditch, the dirt, and the sepulchre. A more melancholy fate met the accomplished Abbé Prevost, who was waked to life by the instruments of the village surgeon, from the suspended animation consequent on an apoplectic fit in the forest of Chantilly.

"Lady Rachel Russell is also cited as an instance where only the devoted love of the husband and his visits to her after apparent death saved a beautiful and amiable woman from premature burial. An authenticated incident is also told of another English lady who fell into a state of catalepsy after a violent nervous disorder. It seemed to her, as if in a dream, that she was really dead; yet she was perfectly conscious of all that happened around her in this dreadful state. She distinctly heard her friends speaking and lamenting her death at the side of her coffin; she felt them put on her dead-

clothes and lay her in them. This feeling produced an indescribable mental anxiety. She tried to cry, but her soul was without power, and could not act on her body. She had the contradictory feeling, as if she were in her own body and yet not in it, at one and the same time. It was equally impossible for her to stretch out her arm or to open her eyes, as to cry, although she continually endeavored to do so. The internal anguish of her mind was, however, at its utmost height when the funeral hymns were sung, and when the lid of the coffin was about to be fastened down. The thought that she was about to be buried alive was the first one that gave activity to her soul, and caused it to

operate in her corporeal frame. She was saved.

"Such facts as these ought to induce more caution in the disposition of persons supposed to be deceased than is now customary in the community. The appearance and condition of the bodies should be more closely observed, and a longer delay in burial practiced. We are compassed about with mysteries, and the God of our being holds in His own keeping the key to a thousand secrets in our formation. The secret things belong to Him, the revealed to us, that we may be cautious, prudent, and always live in that simple manner that is best for a true enjoyment of life."

ORGANIC CEREBRATION.—NO. 3.

(Continued.)

THE SELFISH SENTIMENTS.

THE functions of these faculties, viz., Cautiousness, Approbativeness, Self-esteem, and Firmness, work partly in respect to ourselves: hence they are called selfish, and partly in our relations with others: hence they have the nature of a sentiment.

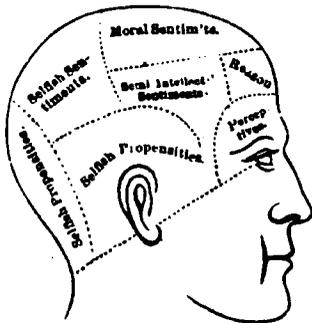


Fig. 1.—GROUPS OF FACULTIES.

We have only to imagine a person to be utterly destitute of Cautiousness, which imparts the sense of fear; or Approbativeness, which gives the desire for approval of our fellows, whether friends or strangers; or Self-esteem, which lays the foundation for personal self-reliance and ability to adopt a course of responsi-

bility without flinching; or Firmness, which gives strength of purpose and steadfastness, to see what a blank the deficiency of any one of these would make in the character. It would be almost equivalent to taking a cog out of a wheel in machinery; it would either suspend the motion or render it exceedingly rough and jangled. Yet we have men who seem almost wholly deficient in respect to them, as we have also men who seem excessively developed in one or another of them. As we have stated in the early part of this subject, character is made up of a combination of faculties, and the shades of character depend upon the relative strength or weakness of the different faculties.

CAUTIOUSNESS.

Let us consider the effect of Cautiousness on the character of a human being: premising that an equal and fair development of this important function is intended to be, and works as a judicious, prudential regulator of the whole life and character as it stands related to the troubles and dangers belonging to life.

In the child, the proper development of Cautiousness will keep it on the alert re-

specting difficulty and danger, and is worth more in the promotion of its safety than the care of half a dozen nurses. When a little child can get freed from its attendant on the street, it runs with all its might, and the nurse generally runs after it, and perhaps, when overtaken, there is a battle for liberty; but let the nurse remain fixed, and as soon as the child finds it is not pursued, it will cautiously proceed a little distance, and on seeing something that it does not understand, and finding itself, as it were, thrown on its own resources and responsibility, it begins to hesitate and retreat, and perhaps is glad to run back to its nurse's arms.

When the faculty of Cautiousness is very weak, the child or man seems to have very little idea of danger, and it should be remembered that while grown people suppose their intellect is their guard in reference to danger, the interior sense of the possibility of danger comes from Cautiousness, and the reason helps to study the relations of the outward world to us in respect to danger. For instance, while driving a man sees a black shadow, or a muddy hole, he can not tell which, in the distance; he has seen such things before, and has found by experience that danger may be connected with them. The intellectual appreciation of that which he has seen awakens at once a feeling of cautiousness; but remember, it is Cautiousness, not the reason, that feels the fear; because the fear arouses before the intellect knows whether it is a deep mud-hole or merely one that has been dried up and made solid and safe. Yet Cautiousness, that knows nothing but fear, raises an apprehension, and the imagination may come in to recount all the troubles that ever have arisen to the man in a lifetime in regard to such apparent danger, and drivers will remember how flat they feel when having approached near enough to such a dangerous-looking place to see what it is, they find that there is no danger at all. Thus Cautiousness mingles with every faculty that can possibly be interested in personal safety.

Caution combines with other faculties in many interesting ways. When the intellect, through observation and memory, brings to Cautiousness a picture of that which may be dangerous, Caution insists on a careful investigation and prudential approach to the difficulty, and does not cease its monitions until judgment and other sources of knowledge have, by their co-ordinate action upon Caution, allayed its excitement.

It is interesting to notice how far fear arouses courage, or how Cautiousness awakens Combativeness and Destructiveness; hence, if a man is cornered and assailed, although if in an open field he might obey Caution and run for his life,

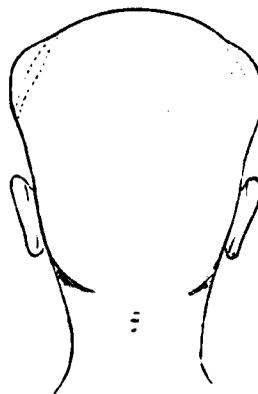


Fig. 2.—CAUTIOUSNESS.

when brought to bay will fight with something fiercer than courage—with the desperation that fear begets, and in its action upon Combativeness and Destructiveness makes them terrible. It is not courage but desperation that leads one to fight when cornered. A dog will fight better in an open field than he will in a corner, for when cornered he is apt to submit, while if assailed in an open field he fights back. In fact a dog will fight a lion or a bear, or bite a wagon-wheel; but a cat assailed in the open field will retreat up a tree or anywhere else that promises safety; but let a cat be cornered, and she will fight ten men and ten dogs—the more the fiercer will she fight, and perish fighting. Men who have rambled in the forests where partridges are to be found will recall instances in

which they have surprised the timid hen with her chicks, and the first intimation the innocent wanderer has that he has disturbed the home of the timid partridge with her brood is by feeling her fighting at his legs; of course, impotently in this case, but with a fierceness begotten of parental love and fear as connected with the chicks; for without the chicks she would have taken wing and gone with a whirr out of sight; but with her chicks she would fight an army. In this case parental love overcomes Caution or, arouses Caution in behalf of her chicks, and then Combativeness and Destructiveness are brought to the work of defending the chicks at the risk of her own life. We have many a time fled from such an encounter with a sublime admiration for the heroic self-devotion of the mother, who is known to be, in respect to herself, extremely timid. Thus we see how Cautiousness, which is called a selfish sentiment, becomes a social element when fear is excited in behalf of progeny that is cherished by parental love. In this case Caution is not a selfish sentiment.

Where Cautiousness is moderately developed people appear rash, and lacking in good judgment, with respect to danger. We have seen a man working on a scaffold high enough to break his legs or neck if he fell, and with nothing to support him but a single board twelve inches wide and twelve feet long; to be sure, it was made of spruce timber, which is tough, but it would bend more than a foot when he walked from end to end. Every one else was excited, through the monitions of Cautiousness; but he had studied it from an intellectual point of view, just as the most of us would have done if the board had been only two feet from the ground; then the discomfort of the yielding to the tread in walking would be the only inconvenience, as there would be no danger to excite Cautiousness. He insisted upon it that it was strong enough to hold him; so it was, but we were studying to be certain that there was no flaw or knotty place in the board which would make it liable to

break. Thus Cautiousness was our guide. Any one of us would have run, on what we call a "spring board," if properly made from selected material. Such a board is sometimes used where swimmers dive into the river or lake, and therefore involves no danger to neck or limb; but our friend would pick up a board, apparently with carelessness, and slap it on its supports, and walk on it as if it were solid ground, so far as any sense of danger were concerned. Men with little Cautiousness often leave out important matter in writing a letter or an important contract; they are apt to take things for granted. Theirs is not the motto of large Caution, namely, "Sure bind, sure find," but rather, "I think it will be all right."

An error in educational government often arises through the excessive action of this faculty in those who have the charge of children. Such persons will try to frighten the little subject, threatening to go away and leave it, or to give it to some stranger to carry off, or to hand it over to the policeman, or say that some dangerous agency will seize upon it and carry it off in the dark; and confiding and timid childhood respects the monition and, perhaps, submits through fear. When old enough to know that the fears were fictitious, it learns to discredit anything the person may say; but the evil effects of the excessive activity of his Cautiousness is not necessarily abrogated by time, and the probability is, that that same child, when it becomes a mother or father, will repeat the same terrible treatment toward children. We would emphasize this to condemn it, and appeal to mothers especially to rectify their error in this regard. If a child has excessive Caution it is generally appealed to through Caution, just as, if it has excessive Alimentiveness, candies and cakes and something to eat will be promised. A person with a full share of Cautiousness, without excess, will feel cautious in regard to reputation, in regard to one's dignity and standing, in regard to one's property, working with Acquisitive-

ness, or in regard to one's friendships and social interests.

Let a person love another, and with what prudence and anxious care everything will be done or avoided that will be calculated to disturb those delightful relationships. If one wants vivid evidence of Cautiousness as connected with the social nature, let him watch a young mother as she exhibits it in her tender interest for the little sleeping infant; how carefully she walks lest it be awakened; how silently she closes doors or opens them; how she refrains from permitting any person to make a racket; how she will cover up the face with a double green veil, then a blanket, and perhaps a shawl, in the middle of July, when the child wants all the fresh air possible! We have seen a child pinned up like a sore finger in cold weather until it required a mother and grandmother to find out where the head was, and undo it; and one, the first baby, was so wrapped that it was black in the face when undone. And we can see it in a hen when she comes, the first time, from the nest with a dozen chicks, how every feather stands on end perpendicularly; how she swings on her centre and squalls defiance at everything that might alarm or harm a chick! In other words, it is Parental Love and Cautiousness combined, and on the eve of insanity. If she were a human mother she would bundle up her chicks and pin them tight.

APPROBATIVENESS.

Approbativeness brings us into relationship with our fellow-men. Since we must live with others, the desire of approval is apparently necessary, though some people seem so utterly deficient in this faculty that they seem to care nothing about public opinion, and "I don't care" is the frequent remark. This, however, is sometimes mere bravado and a kind of defence against criticism; but generally people *do* care, some excessively so, and they suffer untold agonies through their fear of ridicule, censure, or disgrace; and if the reader will think

what is done and avoided for the sake of the speech of people, he will get an idea of the influence of Approbativeness upon the action of nearly every other faculty. Let some new style of dress, or of dressing the hair be introduced, and how much ashamed and mortified people soon become if they are not able to copy the fashion and adopt the usage. Dr. Franklin said that "if everybody were blind but himself, he would not care particularly about the color or cut of his clothes," and the supposition is that people are not blind; we therefore do care about the color and cut of our clothing. Watch a party of ladies and gentlemen as they meet on

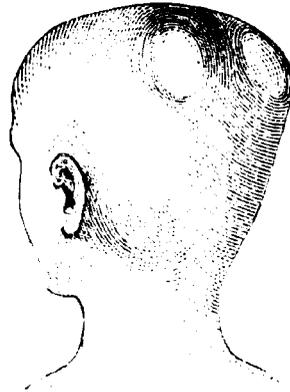


Fig. 3.—APPROBATIVENESS.

the street; see how the eye sweeps from foot to head to take in the whole make-up of a person's wardrobe. If the fashion is a little out of date there is a curl of the lip and an evident, "Oh, how can she be so dowdy as to wear that old thing, a last year's hat trimmed in the old style; why does she comb her hair that way? why don't she cover up her forehead with a bang?" And in phrenological examinations we are sometimes required to brush away the bang from the forehead in order to judge the developments, and the girl or lady will scramble to fix it back again as if it were shameful to show her bare forehead, forgetting that six years before she combed her hair away from the forehead, and from the back upward to the crown of the head, and tied it with a cord, and that

it was then the thing to do. When the style is to have the sleeves flowing and open clear to the elbow, or to have them so tight one can hardly get them on, or to have the skirts so long that they trail the sidewalk, or, what is much better, short enough to be kept clean and tidy, what is the fashion, the usage, or the public sentiment on the subject, Approbativeness seizes upon, and Imitation helps to carry it out. A few years ago the white houses were painted a soft brown, which perhaps was an improvement, making them easier to the eye. At one time the sashes are painted crimson, at another time green; curtains must be at one time of lace, again of soft brown muslin, again Chinese red; and we have seen within a year or two plaid for parlor curtains, and a whole block of houses would be curtained exactly alike; one following another. Let us see how Approbativeness, then, coordinates with other faculties to bring about results; how it arouses Combative-ness to defend the reputation; how it makes the person who is combative feel ambitious to be the best fighter, or the best runner, or the best swimmer; or with Tune, the best musician, the best chess-player, or billiard player, or walker. How Approbativeness excites Acquisitiveness, or masters it, so that it will spend its earnings on whatever is fashionable. Everybody knows that many people have to suffer and sacrifice in certain directions in order to have their curtains, their carpets, their furniture, their dress and appearance, such as the public seems to require; each is ambitious to stand well in the esteem of all; hence a point is strained to have things nice, like other people, and Acquisitiveness and Secretiveness are enlisted to earn the money; hence the endeavor of people in great money centres for the acquisition of wealth to live on a fashionable street, and drive a stylish carriage, and have a desirable and prominent opera box, and an ambitiously located pew in the best church.

Around these desirable things points are strained, and Conscience is twisted,

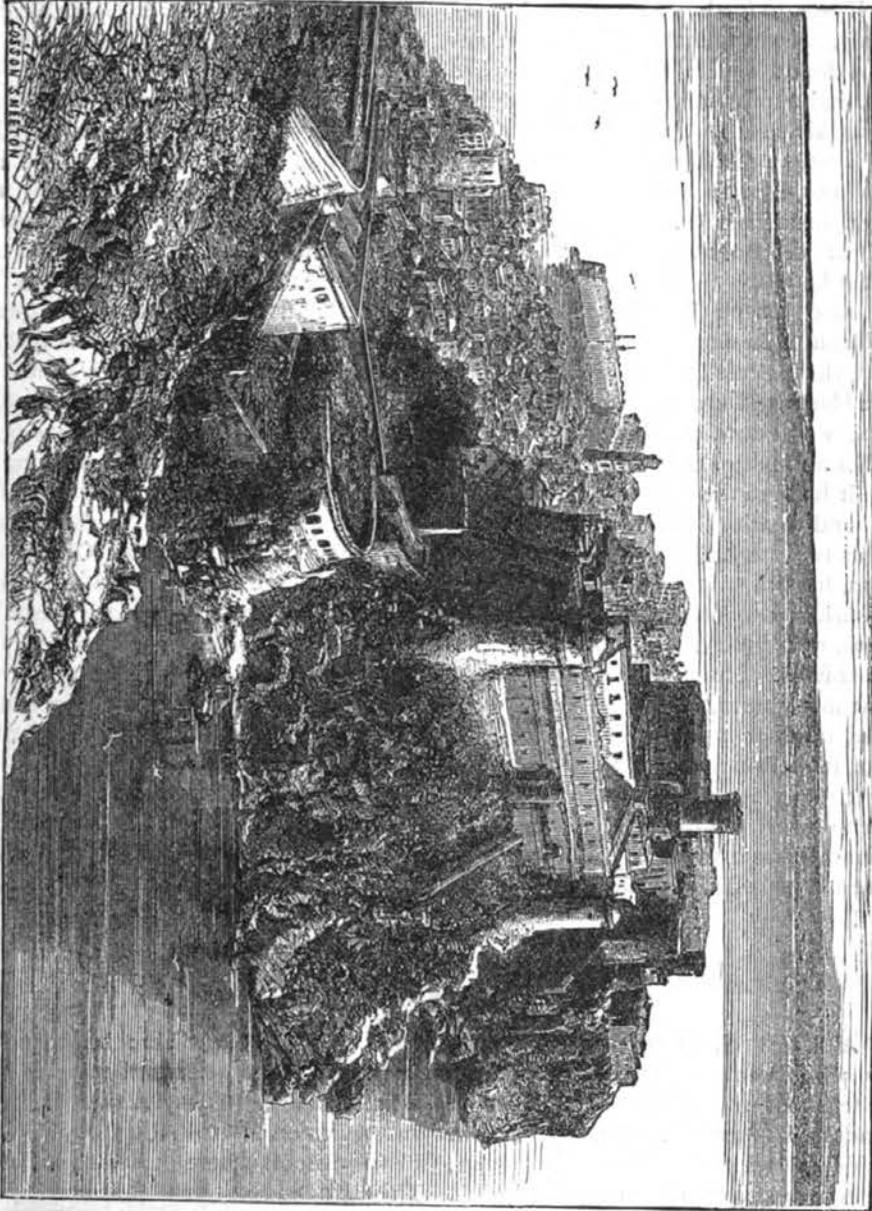
and energy is aroused and policy is invoked, and the desire and skill to make money strained to its highest tension, to satisfy these exorbitant and many times foolish claims of Approbativeness. Of course, Inhabitiveness gives a desire to have a home, but it does not necessarily say that it must be four stories high, if two stories are enough; or that it should cost sixty thousand or a hundred and sixty thousand dollars.

A gentleman in Brooklyn, who resided on a famous and beautiful corner, had a wife, without children, and they maintained their great four-story house, and had a drove of servants. The man finally sold his house, and when questioned on the subject replied: "I have kept a servants' boarding-house long enough." Everybody knows that the desire to have a stylish home and keep everything going as if there were abundant wealth and refinement and taste to be ministered to, as well as to entertain friends for the gratification of the social nature, was the prime motive of keeping up such an establishment. We hear ladies talking to each other, "They live in handsome style"; "they keep four servants"; and perhaps in six months the man fails and pays thirty cents on a dollar, and they call that "being unfortunate in business." How Approbativeness is fostered by Ideality, by the sense of the beautiful; how Approbativeness and music work together; how historical and educational elements minister, by success and eloquence and intellectual power, to the gratification of Approbativeness; nay, how does Approbativeness sting and inspire the student to "consume the midnight oil," that he may win the prize of his academic course and stand first as a scholar; how we boast of the splendid intellect of our friends, of their excellent culture; and Approbativeness sits like a queen and plays upon the faculties, and they work to win our applause and to gratify our ambition, and the result is called happiness.

The consideration of the other organs belonging to this group must be deferred to the next number. NELSON SIZER.

THE CITADEL OF GAETA.

AMONG the great conflicts which in later years have shaken Europe, and in which our own country has taken so deep an interest, we ought to remember reports of the conflict. It was at Gaeta that King Bomba, the last of the Neapolitan Bourbons, faithfully assisted by his Amazon wife, defended his fallen throne.



THE CITADEL OF GAETA.

Garibaldi's brave contest in the south of Italy, in 1860, which joined at last both of the Sicilies to one part of the united Italy. How often was Gaeta mentioned in the

It was here, in their last stronghold, the Bourbon dynasty of Naples, so hateful to the friends of liberty, ended its days. Gaeta was its last protection, and did not

surrender until sickness and loss made any further defense of its terribly assailed fortress impossible to maintain longer.

Those who lived before these events may remember the revolutionary year 1848, when Pope Pius IX. was obliged to fly from Rome and seek refuge in Gaeta. And if one go further back in the history of Italy, he will find that once before has a pope found shelter within its massive walls, and many times has Gaeta endured famous sieges. In 1712 the Austrians, after having discharged 20,000 cannon shots and thrown in 1,400 bombs, succeeded in taking Gaeta from its small band of defenders, consisting of 2,400 Spaniards.

In 1806 Joseph Bonaparte, brother of Napoleon I., besieged it for six months before the fortress fell into his hands. The name Gaeta will always bring to the mind of the well-educated, memories of bold conflict and patient endurance. We can trace it back to the darkness of legendary time, and to the Roman period. Virgil tells us that its Latin and ancient name, Cajeta, has its origin from having been the burial-place of Cajeta, the nurse of Æneas, who followed him here after his long travels. Strabo says it comes from a Laconian term, Baidria, a hollow or cavity, alluding to a receding of the shore. Gaeta, indeed, can rival Rome in age, and during the reign of her emperors was a favorite resort for the nobles. In Gaeta are many classic remains. There are to be seen ruins of villas, theatres, and of

the circus, and there is a fine marble vase by the Athenian sculptor, Salpione. In the great strong tower of the citadel is the tomb of the Constable Bourbon killed when Rome was taken in 1527. In its early growth we see the coming grandeur of Italy's proudest republics. There are now above 16,000 people in Gaeta, thriving upon its fisheries, and oil and wine and fruit trade.

Gaeta is most beautifully situated on a promontory projecting into the Mediterranean, and joined to the mainland by a low, narrow isthmus, protected by solid walls. On the top of this promontory is the circular tower d'Orlundo, said to be the ancient mausoleum of Lucius Munatius Glaucus, the friend of Augustus.

The striking position of Gaeta makes it a strong fortress, and also gives it a delightful climate. So high is the promontory that on all sides the cooling sea breezes come, soothing and allaying the oppressive summer heat. Its beautiful bay has been celebrated in the verse of Homer, Virgil, and Horace. Our illustration furnishes a faint idea of it. The deep blue sky, the not less glorious ocean; the glowing, ever changing green and olive and orange, all worked into life with Horace's fairest children by the warm sun of lovely Italy, contribute to the great attractions of this fair spot of earth. Beyond the region of the Alps the sun never shines as brightly as on Gaeta's matchless landscape, with its ever variegated charm.

L. M. M.

BISHOP SIMPSON.

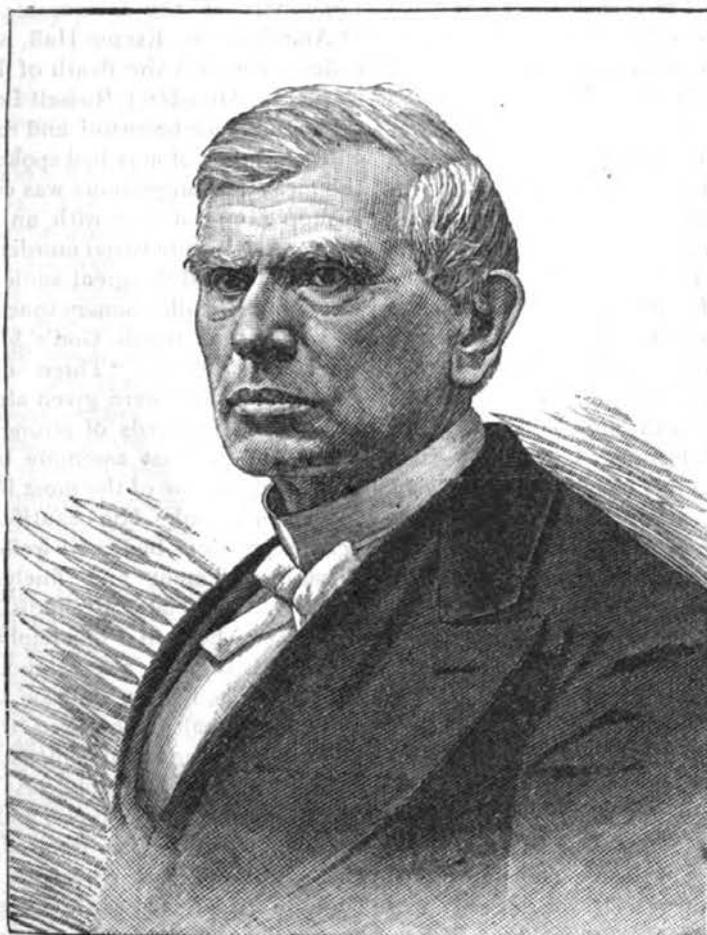
MATHEW SIMPSON, D.D., LL.D., who went to rest amid the flowers and tears of a nation at his home in Philadelphia, June 18, 1884, was a man of wide culture, great oratorical powers, untiring will, and rare magnetic gifts. He was born June 21, 1811, in Cadiz, Ohio, son of James and Sarah [Tingly] Simpson. His father was a merchant in the place, and displayed manifest ability in trade. His primary education was

received at Cadiz, where he began the study of classics, afterward entering Madison College, Pennsylvania. Later he was transferred to Allegheny College, Pennsylvania, where he was graduated. This graduation was followed by the study of medicine in Cadiz, Ohio, where he earned the M.D., in 1833.

Being dissatisfied with the prospect of ministering only to the physical ailments of his kind he yielded to an im-

pulse that had moved him long, and entered the pulpit. For this work he was specially suited. His personal presence was commanding and pleasing; his voice full, clear, and penetrating; his intellectual attainments and breadth of thought unusual; his language chaste and fervent; his temperament active, and sus-

shone as a star among his friends, and glided by the right of moral excellence and intellectual capacity to the highest position of honor in the Methodist Episcopal Church. There he has for the third of a century been a fixed and guiding light. Uplifted to a higher firmament, with these summer days he is lost



BISHOP SIMPSON.

tained by force and endurance exceeding that of most men. He joined the Pittsburg Conference. His oratory and mastery of doctrinal discourse combined to render him a preacher of great power and an exceptional religious instructor. His pastoral career, which extended over a space of fifty years, was one of remarkable brilliance. While he was ever surrounded by the halo of affection, he

to mortal view, mourned, beloved, honored, and blessed.

He was a man of strong physique and tireless energy. His physical powers being wholly equal to the strain his inspired soul and outreaching active mind put upon them until the morning of September 12, 1880, when he was taken seriously ill while conducting religious services in San Francisco, and had to be

supported from the pulpit. Since that date, although able at intervals to perform much clerical work, his health gradually declined.

In 1837 Rev. Mathew Simpson was elected Vice-President of Allegheny College, and also appointed Professor of Natural Sciences in that institution. In this capacity he served two years, then accepted the Presidency of the Indiana Asbury University. He filled the chair there with honor until 1848, when he became editor of the *Western Christian Advocate* in Cincinnati. In 1852 he was elevated to the episcopate at Boston, and during the intervening period has presided at Annual Conferences in every State in the Union, and in most of the Territories. In 1857 he was sent by the General Conference as fraternal delegate to the Irish and British Conference, also to the Evangelical Alliance in Berlin. After transacting these missions he made an extended trip through Turkey, Greece, Egypt, and Palestine. Later he became President of the Biblical Institute, Evanston, Illinois, visited Mexico, Germany, Switzerland, and other countries to participate in the furtherance of church work. The degree of LL.D. was conferred on Bishop Simpson by the Wesleyan University in 1871, it having some years previously given him the D.D.

In 1878 he delivered a series of "Lectures on Preaching" before the Theological Department of Yale College, which were gathered into a volume. His book, "A Hundred Years of Methodism," is also a valuable contribution to religious literature. It was not only as a grand figure in Methodism, that Bishop Simpson was great. Keenly alive to all matters of general interest, with the good of mankind, the nation, and the world at heart, he looked far beyond denominational boundaries. The Christian Bishop was a Christian Patriot; known and honored throughout the world as one of America's best and most influential citizens. It was he who attended his warm friend Abraham Lincoln during his second inaugural honors, cheering

him with hopeful promises and beautiful similes. It was he who delivered the grandly mournful and brilliant eulogy, the funeral sermon of President Lincoln, at Springfield, Illinois, May 5, 1865. It was he who invoked the Divine blessing upon us and all nations at the opening of our Centennial International Exposition in 1876. It was he who electrified the Londoners at the memorable meeting of Americans in Exeter Hall, which was called to mourn the death of President Garfield. Minister J. Russell Lowell had pronounced his beautiful and exhaustive eulogy; others of note had spoken; when the measured programme was completed Bishop Simpson rose with an eloquent impromptu tribute to our murdered President that lifted the great audience to its feet. When in full, resonant tones he asked in well-chosen words God's blessing on England's Queen, "Three cheers for Queen Victoria" were given almost convulsively. Hundreds of strong men and women in the vast assembly burst into tears, making one of the most impressive scenes on record. His beautiful and fervent expressions had their well-spring in a wise judgment and finely-balanced mind. At the late Methodist General Conference, held in Philadelphia during the month of May, a continuous session of four weeks, Bishop Simpson, though in very frail health, appeared thrice, his presence eliciting warm demonstrations of pleasure from the assembly. At the close of the session he was there, and bidding the Conference a final farewell, invoked God's blessing most reverently upon the Church. It seemed as though particular strength was given for this beautiful and characteristic closing act of his life.

His wife, a gifted lady of matured loveliness, survives him, as do five children, one son and four daughters. The son, Verner Simpson, is a member of the Philadelphia bar. The eldest daughter is the wife of Rev. C. W. Buoy, and the second daughter, the wife of Col. J. R. Weaver, Consul-General of the United States at Vienna. Sibbie and Ida are unmarried. MRS. S. L. OBERHOLTZER.

LITTLE CHILDREN AND OLD PEOPLE.

THERE should be kept one big, sacred corner in every human heart for the little children and old people. They seem to be nearer heaven than persons in middle life. Two most lovable traits, kindness and truth, are natural to both. And truly—

"There is nothing so kingly as kindness ;
And there is nothing so royal as truth."

They don't wear masks, and we love them for it. There is no pretension, no seeming to be what they are not.

Natural, spontaneous, and free are all the actions of the little ones. Not always smiles and good humor, of course. But who would want all sunshine and no showers? Monotony tires us. The thorn-covered bushes make the perfume of the roses none the less sweet. Pure, fresh, and joyous as the glad spring-time are the children; cheery as the birds, abounding with life and happy in existence.

Very bare and bleak and cold would this world be without them; they keep our hearts young and warm. Their presence is a sort of fountain of youth whereby we keep from growing old. We can hardly imagine a person to be good and noble who has not some nook in his heart where often linger loving thoughts of some child.

A house that does not have daily resounding through its rooms the silvery tones of a child's merry voice hardly deserves the name of home. And when there are so many homeless orphan waifs in the world no household has any business to be without at least one child in it. And no home is completely and properly furnished, no matter how grand, tasteful, and costly it is, if some child be not a part of its furniture. Little children are the flowers, the poetry, the sweetness of life.

Jesus wished to teach us something when He took the little ones in His

arms and blessed them. All these little folks who are the coming men and women of the world, how carefully and wisely should they be guarded! All influence brought to bear upon them now will never be effaced, but the effects will be manifested in after life. And not less gently should we treat the dear old people. I mean the *good* old people who are "found in the way of righteousness, and whose hoary heads are crowns of glory." Their very presence seems to let fall a benediction upon us. The aged have so well been likened to our beautiful autumn-time, when—

The leaves kissed by the sun's bright rays ;
Nodding farewell to summer days :
A serene stillness fills the air,
Only a rustling here and there,
Softly murmuring through the trees,
Low, sweet music borne on the breeze.
We wonder if each old tree grieves
At losing its beautiful leaves.

But the trees are not dead—they, like the old people, have a life within that will some day open into new beauty. Now almost done with the work and worry of the heated summer-time of middle life, in the richness of their ripened years are ready for the death-angel to carry them to the happy harvest home.

There has been the May-day of young life; the strife and bustle of a later time; and now tired of it all, calmly await the awakening into a renewed life, and to a higher, better work.

It is a pleasure to be near those we love, and we want to draw very close to the beloved aged; put our hands caressingly, aye, reverently upon their heads and smooth down the gray hairs.

Yes, the good old people and the little children—we love them both; and pray Heaven to keep and bless them. And may our earth never be without their benign presence and influence keeping our hearts tender and true.

S. M. BIDDLE.

CHINA: ITS AGE, GOVERNMENT, AND SOCIAL CUSTOMS.—II.

THE educational system of the Chinese can not be placed upon a level with the systems of more civilized nations, although it has many features that might be profitably imitated. It is a remarkable fact that a nation whose religious conceptions are so degraded, and who, until within a few years, has withdrawn itself from all communication with civilized countries, should have based all preferment upon education, although it be of an inferior kind. Females in China are not, as a general thing, considered worth the trouble of educating. Some Chinese ladies are, however, well educated. Many families among the wealthy employ private tutors, and where this is the case the daughters are frequently allowed to participate in the studies of their brothers. Boys are sent to school at a very early age, where they are taught those universally essential studies—reading, writing, and arithmetic. They are also taught their various duties to parents, teachers, and magistrates, as well as to their equals and inferiors.

There are, strictly speaking, no free schools in China, although the system of education is regulated by law, and every district is obliged to maintain a public school. The primary schools are taught at cheap rates—the expense being but two or three dollars per year for each scholar. Although the expense is so small, it is seldom that a laboring man can educate more than one son, as his wages are but a few pennies per day. Evening schools are established in all the large cities and most of the villages for the benefit of boys who are obliged to labor during the day. At the age of fifteen those scholars who have made the greatest advancement in their studies are sent to schools of a higher grade, where public lectures are given by learned professors upon the government and laws of the empire, and upon such other subjects as are best calculated to fit them for offices of State. In these schools the

pupil is taught submission to the laws, to parents, and all superiors, together with a peaceful demeanor.

Competitive examinations are a distinctive feature of the Chinese Government, and it is by their means that every office in the land is filled. It is natural for every parent to hope that one of his sons will distinguish himself in the walks of literature; and in China, perhaps more than in most countries, the parent is honored by the virtues of the son and degraded by his vices.

To fit a youth to become a candidate for literary honor requires many years of laborious application to study. Five or six years are spent in committing to memory the writings of the ancient sages. Another six years are spent by the student in acquiring a knowledge of the art of composition. To this end he is obliged to learn a vast number of set phrases and apt similes.

There are two classes of examinations for those who aspire to literary and political honors. In the first class the examinations are threefold, and occur annually. The successful candidates receive a degree which corresponds to that of A.B. in our colleges; in the second class the examinations occur once in three years, and degrees corresponding to our degrees of A.M. and LL.D. are conferred.

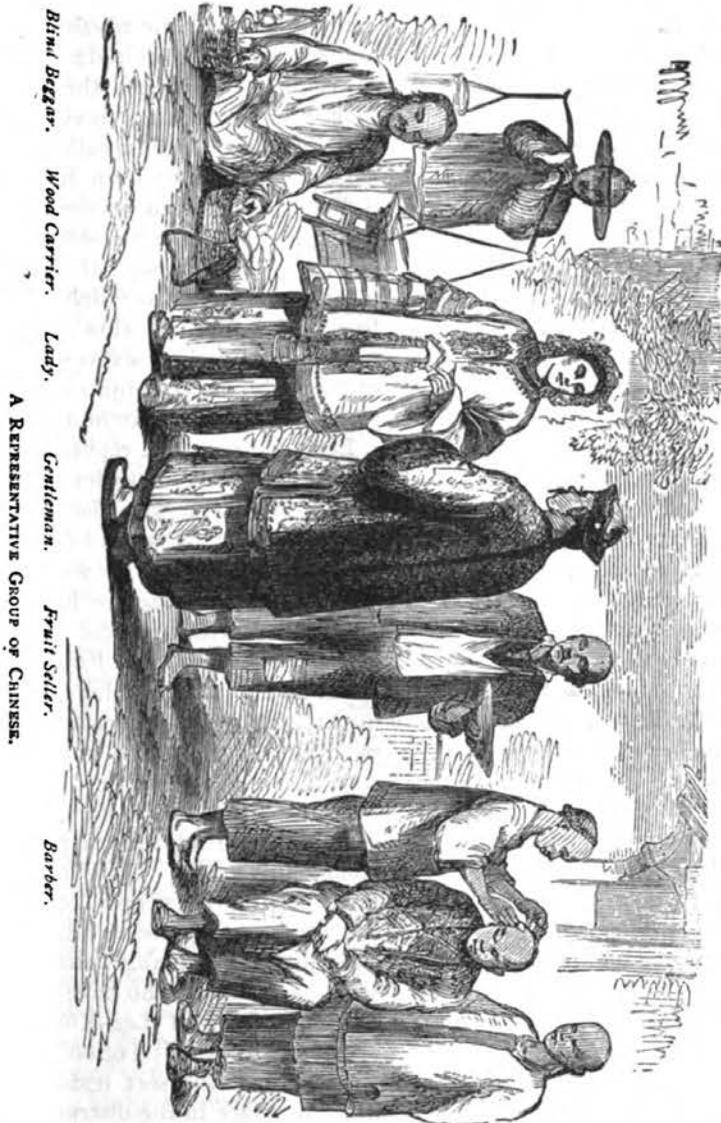
The Chinese take great pains to instil into the minds of the young a proper sense of the value of an education. To this end they have written many volumes of short and simple tales, which they read to the young as soon as they are old enough to comprehend them. A single example is sufficient:

“There was a boy whose father was so poor that he could not afford to send him to school, but was obliged to make him work all day in the field to help maintain the family. The lad was so anxious to learn that he proposed giving up a part of the night to study, but as his mother had not the means of supply-

ing him with a lamp for that purpose, he brought home every evening a glow-worm, which, being held in a thin piece of gauze and applied to the lines of a book, gave sufficient light to enable him to read; and thus he acquired so much

and the officers of Government will submit to no other. They treat other existing systems with supreme contempt.

Confucius was born about 550 B.C., in what is now the province of Shantung. He was the son of a lady of illustrious



knowledge that, in the course of time, he became a minister of state, and supported his parents in ease and comfort in their old age."

Among the religious systems of the Chinese, the worship of Confucius stands pre-eminent. It is the State religion,

family, if not of imperial rank. His ancestors had held high offices under Government for several generations; but his father dying when he was but three years of age, and leaving him but poorly provided for, he was obliged to work at manual labor during his early years. He

married but one wife, at the age of nineteen, but divorced her after she had borne him one son. At the age of twenty he was appointed superintendent of grain and cattle in his native province. He afterward held the position of Mandarin at court; but being grieved because the emperor refused to follow his advice, he resigned his office and went into a neighboring province, where he became a teacher of morals.

Confucius lived seventy-three years. Toward the close of his life he mourned much over modern degeneracy. A few days before his death he said to his disciples: "Kings refuse to follow my maxims, and since I am no longer useful in the world, it is best that I should leave it." His descendants inherited the title of Mandarin, and are the only hereditary nobility in China. He had several thousand disciples by whom he was held in the deepest veneration. After his death they erected a tent near his tomb, and many of them remained for three years mourning for him, and offering prayers and sacrifices.

His doctrines were based upon the conception that human nature is *good* and *beautiful*, unless obscured by the darkness of ignorance or sullied by the contagion of vice. As the best method of restoring its original purity, Confucius inculcated reverence toward the Supreme Being, justice and benevolence toward others, temperate indulgence of the appetites, and a due regard to propriety in all things.

Nearly twenty-five hundred years have passed since the death of Confucius, and he is as much venerated to-day as ever. He is worshipped as a superior being, and many temples are dedicated to him throughout China. The learned and refined are very careful to distinguish between what they render to Confucius and that offered by the common people to the Buddhist and other idols. They never employ in it any image or picture of the philosopher, but write his name with some eulogistic title, as "Most Holy" or "Wise," on a tablet of wood

several inches long and one-third as wide, and before that present their oblations and bow themselves to the earth.

Contemporary with Confucius there arose another great teacher called Lao-Kiun. He founded a sect called *Tao-tse*—from *Tao*, reason or wisdom. He voluntarily renounced the advantages of rank, and retired to the solitudes of the forests of India. He taught the existence of One Supreme Being, invisible, eternal, and incomprehensible, called *Tao*. Successive emanations from him were subordinate spirits who produced the world and governed it in his stead, but as his agents. The science of *Tao* was the means of arriving at felicity and perfect freedom; although this science could only be obtained by severe mortifications of the body, entire subjection of the passions, and devout contemplation.

Lao acquired great reputation for sanctity, and marvellous stories are told of his birth. His statue was placed in the emperor's palace, a splendid temple was erected to him, and he was worshipped as a god. The *Tao-tse* have a sacred book filled with magical formulas and invocations to spirits. From revelations contained in these writings, the teachers of this sect profess to be able to cast out evil spirits from those who are afflicted with diseases, to predict future events from the aspect of the stars, and to make gold by some mysterious process of alchemy and magic. They have great influence with the people, to whom they sell amulets to preserve them from evil, and also innumerable small images of spirits and saints who have become God. The successors of Lao-Kiun are always honored with the title of chief mandarins. The head of the sect resides in a magnificent palace in the district of Kiang-si. A great concourse of people, among whom are some persons of rank, flock thither from the neighboring provinces to have diseases cured or fortunes told.

Buddhism is, however, the most extensive of the religious systems of the Chinese. Introduced about the year 65 of the Christian era, the new religion

took such hold upon the Chinese that in five centuries there were three thousand temples of the god Fo—the Chinese name for Buddha—in the empire, and the “emperor himself was so attached to the new faith that he resigned the Government to his adopted son, that he might withdraw from all worldly affairs and devote himself entirely to meditation on divine things.”

Buddhism has never gained much favor with the literati, by whom it is treated with contempt and ridicule, but the common people are so attached to it that the Board of Rites have not deemed it prudent to express an opinion against it.

Every Chinaman worships also the spirits of his ancestors, both in private and in public. They build great halls, and support them at an enormous expense. In these halls they erect tablets to their departed ancestry and offer sacrifices to them. They have set days in each month on which they assemble in their respective halls to offer sacrifice and burn incense.

On the fifteenth day of the eighth Chinese month occurs the festival of the moon. The celebration of this worship presents a very striking appearance to a foreigner. The shops are closed, and great quantities of gunpowder are exploded, while flags of many forms and colors may be seen waving in the breeze, many of them having astrological emblems inscribed upon them. At the time of this festival the bake-shops provide a large quantity of cakes of a peculiar kind and of a great variety of sizes and shapes. Many of them are circular, in imitation of the shape of the moon, and are from six inches to a foot in diameter. The Chinese suppose the light and dark spots on the surface of the moon to be a white rabbit pounding out rice. In accordance with this idea, many of these “moon cakes” have a rabbit engaged with his pounder painted upon them. On others

are represented gods, goddesses, animals, flowers, etc.

The Chinese worship a great number of deities. They have one for almost every department in life. Among them are: To-ti, god of the earth; Pin Tseuh, a god of health; Hwa-kwang, the god of fire; and Kwan-yan, “the hearer of cries.” The worship of the latter resembles that of the Virgin Mary among Romanists, and she is represented holding a child in her arms.

A universal and most powerful superstition is the worship of the “*fung shwin*,” or powers of nature. If a house be built upon lower ground than another,



PUNISHMENT IN THE TUB-CANGUE.

or if it front in an unsuitable direction, or is situated unfavorably in respect to the course of a stream or the prevailing winds; if it be overshadowed by the tree of a stranger or an enemy, no pains are spared to remedy the evil. One method of doing this is to erect a tall flagstaff which shall overpower the antagonistic influences.

Many of the social customs of the Chinese are very peculiar. An individual is not well educated until he understands the rules of etiquette. “He must know how many bows to make to his visitors; what compliments to address to them according to their rank; whether at their departure he should attend them as far

as the door, or only so many paces toward it; and other minute observances too numerous to mention." Visiting is conducted in a manner which would seem to us to be very formal. A gentleman in making a morning call does not alight from his chair until he has sent in his visiting-card, that the master of the house may give him a suitable reception according to his rank, as it is etiquette to hurry to the door in some cases to receive a guest, while in others it is only necessary to meet him in the middle of the room. In the former case the bowings are lower and more numerous than in the latter. The law has decided that the superior shall take the precedence in entering a room, yet it is considered polite to make a pretense of refusing to go in first, and a few unmeaning compliments always pass on the occasion, both

knowing very well which of them is to take the lead. Tea is always offered to a morning visitor, and is usually accompanied by sweetmeats and pipes.

A gentleman usually wears in the house a loose robe of silk, but in the summer one of some lighter material, with a cap suited to the season. If he is a mandarin, a ball is worn on the top of the cap to designate the class to which he belongs. The summer cap is as light as a chip, which it somewhat resembles. It is made of bamboo, and is in the shape of a cone. If the wearer be a Government official, he has attached to the ball a crimson silk ornament which hangs like a fringe. The winter head-dress is of satin, with a wide hem of black velvet turned up all around, with the usual adornment of ball and fringe at the top.

ALBERT M. DUNBAR.

TWO TEACHERS' METHODS.

"DON'T let me forget to stop in a drug-store and get some quinine. I shall have to give up teaching and go to bed if I am not careful."

"What are you going to do this evening?" Miss Shepard's companion, a ruddy-complexioned, bright-eyed young woman, inquired.

"Do? Why, correct compositions and make up my reports, of course. What else is there for me to do? What are you going to do?"

"I am now going to walk four miles at least. Then I shall go home and make up some of my papers. Then I shall have my dinner, and I give you my word that I shall be as hungry as a shark. Then I shall read something that interests me, and after that go to a concert."

"I should like to know what kind of a condition you will be in, for to-morrow's labors?" Miss Shepard inquired with perceptible irritation.

"Why, tip-top, of course. My lungs will have been invigorated by the rich doses of oxygen that I shall have treated

them to. My blood will be purified and my circulation regulated; and these healthful physical conditions will act upon my spiritual body in so beneficent a fashion that I shall be attuned to the heavenly harmonies which are in store for me. I shall love my neighbor as myself, and I shall sleep the sleep of the just."

"It is my opinion that if you had my class to manage, you would not have so much time for concerts and promenades. I haven't a single evening in the week that I can call my own," said Miss Shepard. "I am completely worn out now. Three of my boys have been in open revolt all day. The Principal has no sympathy for my troubles and no patience with me. He told me to-day that I sent five boys to him where any of the other teachers sent one. If my work was appreciated it would be different. You are popular, and have your own way in everything. I don't think it would make the slightest difference what you did, or what you omitted to do. The Principal

and every member of the Board of Education would think it was all right. Whereas——"

The speaker paused this time because her voice was so full of tears that she couldn't go on. She was a conscientious, estimable woman, full of moral energy, and possessed of a real gift of imparting knowledge that would have made her an invaluable teacher, had there not been a lack or an overplus of some other qualities which stood in the way of success. Miss Bourne, her companion on this occasion, as well as a sister teacher in the same public school, had her theories about Miss Shepard's failure to reach the requisite standard, and because of her perfect physical and spiritual healthfulness was always pleased to be of assistance to those who were not so fortunate. Miss Shepard's present state of mind rendered advice dangerous. Miss Bourne would have liked to complete her companion's unfinished remark, but, being a woman of tact as well as of superior common-sense, she forbore.

"Whereas everybody is always on the alert to see if they can catch me tripping."

Miss Shepard swallowed her tears and proceeded with her lamentations.

"By your own showing," she added, "you do not take half the pains that I do to keep ahead with your work."

"Temperamentally you are an extremist and I am a conservative," said Miss Bourne pleasantly. "But there is more than this. My first care is to keep my body in good condition, so that my nerves will be equal to the demand upon them. In your zeal to do all and more than is required of you, you constantly ignore the body, and expect to do your work without health. In order for me to be on good terms with a class of fifty strong, vigorous, keen-witted, jolly, mischievous boys, I must in the first place feel well. If I open the day with set lips, upon which there is no smile, and a voice hard and unsympathetic, on account of an aching head and rasped nerves, these boys are not going to discriminate between

the condition caused by ill-health or that engendered by impatience with them. Miss Bourne is cross. All cross teachers ought to be hazed. Therefore it is right for us to make it warm for Miss Bourne. That is boy logic, and it is quite useless to expect anything else."

"But can't boys be gentlemen?" Miss Shepard asked irritably.

"Fifty boys can't be gentlemen," was the unanswerable response; "but fifty boys can be successfully handled——"

"Yes, if the hand is strong enough," Miss Shepard interrupted.

"And warm enough," her companion supplemented.

"Oh, yes, I forgot," said Miss Shepard bitterly, "that you have the model classroom."

"Given fifty boys to instruct and discipline," Miss Bourne resumed, without noticing the taunt, "the first step toward success is the gaining of their confidence. This is by no means an easy task, and no woman under the light of the sun can do it who is not well. I was very much amused when I was first assigned to my present class at the way almost every one of the young rascals searched my face when I came before them. It was a hunt for weakness and nervousness and crossness, and I knew it. But I always met them smilingly, and my first victory over a certain negative insubordination, which is so hard to deal with, was won by reading a short, somewhat adventurous story for boys which I had found in the *St. Nicholas* and saved up for this very emergency."

"Well, if I had done such a thing as that," Miss Shepard remarked quickly and scornfully, "I should never have heard the last of it."

"I was not criticised," was the quiet response. "Those boys were given me to manage and instruct by the methods which seemed the wisest to me, and productive of the best results. I am reading interesting incidents from French history now, and the boys look forward to the half hour which I occasionally give up to this purpose with the most eager interest.

These readings are always rewards for attention and good behavior."

"So you hire your boys to behave themselves?"

"Isn't that a legitimate method?" Miss Bourne inquired. "It seems to me quite as much so as a reward of merit. I have never tried any cast-iron rules, and if I had to I should give up teaching. I have seen them experimented with, however, and with very poor results. I must and will use my own intelligence in the work I have to do."

"Well, I can not use mine, and I do not see why you should be so much more favored than I am," Miss Shepard responded.

This was unjust, but her companion did not seem in the least disturbed by it.

"Miss Shepard," she said, with a trifle more firmness than she had previously shown, "the teacher who makes a practice of sending boys to the Principal to be managed, confesses, by so doing, that she is not able to discipline them herself. This being the case, it is not strange that the head of the school, in the endeavor to discover what is the matter, should make himself obnoxious to a sensitive teacher."

"How often do you send boys to the Principal?" Miss Shepard asked.

"I have sent but one boy in three months and he was afterward expelled, because he was a born rowdy, and not amenable to any sort of treatment. You see I am anxious not to have my methods questioned or criticised."

"And you feel perfect confidence in your own judgment?" Miss Shepard asked.

"Why should I not, when results are satisfactory?"

"You are very kind, and I have no doubt that you would like to be of assistance to me," was the sad response; "but there is but one inference to be drawn from your remarks, and that is, an unfavorable criticism of my methods. I suppose you do not think that I am adapted to the work I have chosen."

"I heartily wish that I could be of some

service to you," was the pleasant answer, "and I certainly do not think you have mistaken your calling, although you have confessed your inability to manage your boys, and entirely satisfy those in power. Now, I am anxious to prove to you that the failure which you so deplore is due very largely to impaired health and rasped nerves. You are always exhausted. You are not able to face your boys responsively, because you feel that you are to be taken advantage of as soon as your work begins. This is patent in your face and manner, and, being boys, they are bound not to disappoint you. Now, why are you thus nervous about your work?"

"Because I am chronically worried for fear something disagreeable is going to happen, and that when examination comes my class may not be up to the mark," Miss Shepard replied.

"And then fear is due to the fact that from the time you leave your class till you meet it again, you do nothing but labor for it, and grieve over it. You go from the school-house to your room, and you work till dark. You eat your dinner, and immediately after resume your monotonous occupation. Your food does not nourish you, because you are too mentally disturbed to assimilate it, and you are unable to sleep properly. In these deplorable physical and mental conditions, you will find the reasons of your non-success. You talk about taking quinine, which you should not touch, when all you need is relaxation, rest, and plenty of exercise in the open air. To go from a close class-room, where one has been confined four or five hours, to another class-room to work, and refresh one's exhausted energies by doses of quinine, is about as suicidal a process as to poison one's-self with small and persistent doses of some deadly drug. You ride to and from school. I never see the inside of a car unless the weather is so frightfully bad that I can not walk."

"But I am not strong enough to walk such distances," Miss Shepard persisted, her voice almost uncontrollable again with emotion.

"If you would accustom yourself to

walking every day of your life, rain or shine, snow or blow, you would soon prove the efficacy of the exercise. Begin by walking short distances, increasing a block or two daily. Choose a crowded car occasionally, so as to be permitted to stand upon the back platform. Do anything to be out of doors. Treat yourself to some good music, and good lectures. Go to the opera and theatre once in a while. Use every possible means to forget your daily work. No human being can do good work who does it all the time. It is sometimes necessary to take work home; but if we have been in the open air a couple of hours, it will almost do itself. I don't believe a person can be discouraged who eats properly and is in sympathy with nature. A person who makes a business of being out of doors will be enthusiastic in spite of draw-backs."

Miss Shepard omitted to purchase her quinine that afternoon, and was induced by the logic which she saw was unanswerable to put some of her companion's excellent advice into immediate practice.

Miss Bourne had studied her fifty boys and was well acquainted with them. She had found out that all healthy boys are contemptuous of weakness, and that one might as well try to hold an unbroken colt with a cotton string, as to properly govern a boy with a set of rasped, quivering nerves. She knew also that such a nerve condition invariably caused the teacher to threaten and scold, instead of using more pacific and sensible means. This was Miss Shepard's gravest fault.

Apropos of outdoor exercise, a distinguished New York physician was asked, not long ago, what was the nature of the illness that one of his patients was suffering from. With a merry twinkle in his eye, he said: "She stays in the house to receive her doctor."

Close rooms, ill-ventilated sleeping apartments, want of exercise, and the proper oxygenation of the lungs, will account for almost every disease that flesh is heir to. Women persist in declaring that they can not walk, and so they hug the stove or register, sleep in warm rooms, have the doctor, patronize

the drug-stores, and wonder why it is that they are so weak and low-spirited. The majority of our public-school teachers are like Miss Shepard—chronically cross and exhausted. They go to their class-rooms like slaves under the lash. Their scholars take advantage of them, and their lives are a burden. They can not walk because they are so tired, utterly failing to understand that the frightful fatigue from which they suffer is due largely to the protest of the lungs against foul air. One very successful, because very sensible, teacher of the writer's acquaintance makes a business of opening the windows of her class-room several times daily, and putting her pupils through a set of simple physical exercises. In this way the air is purified, and the children, refreshed and strengthened, resume their studies with true attention. This teacher's methods are approved of, and in many cases imitated. She knows, as all our public instructors ought to know, that obedience and attention are impossible to the children who are compelled to breathe foul air for half a day; and because she understands the construction and care of her own body, and the relation between body and spirit, she is competent to take care of the bodies as well as the minds of her pupils.

ELEANOR KIRK.

PERHAPS the most singular book in the world is a volume belonging to the family of the Prince de Ligne. It is entitled "The Passion of Christ," and is neither written nor printed. Every letter of the text is cut out of a leaf, and being interleaved with blue paper, is as easily read as the best print. The labor and patience bestowed in its completion must have been very great, such are the precision and minuteness of the letters. The general execution in every respect is indeed admirable. Rudolph II., of Germany, offered in 1640, 11,000 ducats for it, equal to 60,000 at this day. This literary treasure bears the royal arms of England, but when it was in that country and by whom owned has never been ascertained.

OIL IN THE HOME.

"SOME time ago," says a correspondent, "I came across the story that I inclose to the PHRENOLOGICAL JOURNAL editor. A wider circulation than the paper has in which I found it should be given it, because of the homely truth of the principles illustrated."

"Come, bring the oil-flask, that's a pet," said Samuel Parsons to his wife, as he finished screwing on a new lock to his front door. Of course he need not have said, "that's a pet," unless he liked; but he used to think that it was a great shame that women were called all sorts of pretty names before they were married, but none afterward. "I say," says he, "many of the poor creatures are cheated with pretty names; poor creatures! they think they will always get them; but they may find them very scarce after the finger is in the ring."

We do not mean to tell all the names he called his wife before they were married; but now he called her "pet"; and, as soon as she heard the loving word, she threw down her duster on the chair and sped off to the kitchen for the flask. The flask had a feather in it, as such flasks generally have, and Mr. Parsons, taking the feather between his forefinger and thumb, oiled the key of the street-door right well, and then locked it and unlocked it a dozen times. At first, it worked rather stiffly, and required some strength of wrist to turn it; but, as it worked to and fro, and as the oil began to make its way into the wards, it worked more and more easily, until at last, Tommy, his little son, who was standing by, was able to turn it almost with a touch; and then Mr. Parsons said that it would do.

The operation finished, he thought he would just give his knife a touch of the end of the feather; less than a drop out of the flask would do, just a mere touch—that was all it wanted; and, presently, to young Tommy's great delight, his father made the blade go up and down, click, click. Tommy evidently approved of the result, for he began to click, click, with

his tongue and the roof of his mouth, in imitation; and how long he might have delayed his father, we can not tell, if it were not that Mrs. Parsons took him up in her arms and made off with him, she calling Tommy a "saucy rogue," and kissing him all the way, and he, on his part, click, clicking, as though his mouth were a cutler's shop, and you were opening and shutting every knife in it.

Some folks might think that Mr. Parsons had done enough in the oiling way for one day; but there was one thing more to do, and then he would be quite ready to take his potatoes to market. One or two of the wheels of his wagon had been a little creaky, and so he took his pot and gave the axles a touch of its contents. You could have rolled all he put upon them into the size of a couple of marbles, but it was quite enough; the wheels gave over their creaking. If the old proverb be true, "Silence gives consent," no doubt they approved of what he had done.

"Now, then, I am off to market," said he. "Good-bye, Jenny, pet." Oh, that little word "pet"; did not the cunning fellow oil his wife's temper, and even almost her very joints, for her day's work when he called her that little name? "Good-bye, Tommy, my darling." Oh, you cunning man, there you are with your oiled feather again; for, when Tommy was naughty, and his mother reminded him that she must tell his father when he came home, and "father would be sorely grieved if his darling was naughty"; was not Tommy good? for, child though he was, he was able to reason this much in his mind: Tommy is father's darling, and he would not vex him; darlings ought not to vex those who love them. Never mind, good reader, if there is a flaw in the logic; nursery logic is sometimes very funny reasoning, but it answers the purpose; naughty Tommy became good, and click-clicked about the house as merry as a cricket, instead of sprawling and bawling on the ground; and all because

his father happened to call him darling before he went out.

"I say, Polly," said Mr. Parsons to the servant-maid, as he left the house, "do not forget to clean up those irons, if you can manage it, that's a good lass; you will find the oil-flask behind the kitchen door." And so, with a cheerful smile on his countenance, Mr. Parsons took his departure for market. Ah! cunning man; before he went he oiled his wife and child, and now he oiled his servant-maid; and when he turned his back upon his own door, he left smiling faces and glad hearts behind him, and, I warrant, he found them all smiling to receive him when he came home.

Meeting his neighbor, Mr. Smith, at the market, he said to him: "I have great faith in oil, Mr. Smith; in fact, I oil almost everything; this very morning I oiled the lock of my street-door and my penknife, and greased my wagon-wheels; and I oiled my wife and child; and I gave the servant-maid a touch, too; and I tell you what it is, neighbor Smith, I slip along famously, where I find another sticks fast."

Mr. Smith's torn nail seemed to give him a fresh twinge when the penknife was spoken of; and, as to the wife, his conscience reminded him how harshly he had behaved to his own wife at breakfast.

"What do you mean by oiling your wife, man?" said Mr. Smith, rather tartly; "you have not been sneaking, have you, and knocking under to a woman?" and Mr. Smith edged away from Mr. Parsons' side, as though he was near some slimy serpent.

"No, indeed," he answered, "I have not been knocking any way, neither under nor over, but I just gave her and the little one a loving word before I started from home; and I said a kind word to the house-maid, to cheer her up through her work for the day; and, for the matter of that, I gave the old apple-woman a touch of my oiled feather, too; few people say kind words to her, and so I did, and, I dare say, it helped her through the day,

too! I would not cringe to any one living," continued Mr. Parsons, "not to the queen herself; but to cringe is one thing; to be civil, respectful, and loving, according as the case requires, is another; I never knew ill to come of it, and I have often known good. Yes, neighbor, I have known the good of it in my own house, over and over again. There is my Jenny. You do not know the work there is in that little creature; bless you! she would work herself to the finger-bone, if you give her a kind word. I have known her to sit up seven nights with me, without taking off a single article of her clothes—for instance, the time I broke my leg; and when I said to her one morning, as the day was breaking, and I looked at her red eyelids, 'Jenny, my darling, I can never pay you for all this,' she laughed and said, 'Why, Samuel, how can you tell such a story? you have paid me now.'

"'Paid you, my wife! why, what do you mean?'

"'Did you not say "my darling"?' "

"'To be sure, I did.'

"'Well, was not that payment to a woman's heart?'

"And she looked so earnestly at me, that I felt the tears come in my eyes. Oh, neighbor, I could not say it as she did, for these women have a way of speaking that does not belong to the men. Sometimes I think there is a kind of pipe that makes music in their throats; but ever since that day I have been ten times as loving as I was before, and I try to say a kind word, not only to Jenny, but to every one I meet. I believe, neighbor," continued Mr. Parsons, "that women are of that nature that they will do anything for love; there is no use of our driving them, of our scolding and ordering, and banging them about; that only makes slaves of them; but give them a little love and they will do wonders."

As Mr. Parsons found that his neighbor was listening, he was encouraged to go on, even though he received no answer. "And I do the same," said he, "by every girl that comes as a servant to me. Serv-

ants are made of the same stuff as their mistresses; they all have hearts, and the same kind treatment will reach them all."

Thus discoursing, Mr. Parsons arrived at his own farm-yard. There was Jenny, his wife, ready to meet him with a kiss; and there was Tommy, who received his father with a click, click, leaving it a mat-

ter of speculation as to whether he had not been clicking ever since the morning. And then there was Polly, the servant-maid, standing close to the irons, which shone as though they were fresh from the shop; she hoped they would catch her master's eye, and she knew that she would get a kind word.

A PLEA FOR THE GIRLS.

SMILE as we will at the artless manners of the maiden, and call her little presumptuous ways "cute" and "cunning," yet it is to her care and guidance, as a mother, that we must submit the men of the future generation. If the young girl comes from the fashionable boarding-school looking with contempt upon the uncultivated, and the conventionalities of daily life, it is not so much a fault of hers as of her education. Heighten the standard of her schools, making them practical and substantial, and instead of many simpering graduates, they will send forth to the world young women of intelligence with correct views of life. Mamma, as the one who takes the greatest interest in her daughter, has undoubtedly selected the school, and fitted out the wardrobe that would be more suitable for a watering-place, all the time instilling in the mind of the fair and delicate Isabelle that she is expected to return talented, accomplished, and thoroughly prepared to shine in the higher circles of society. Is this an incentive to acquire any real knowledge? If she be a dutiful daughter she will, of course, strive for refinement, and elegance of manners and expression; and if selfishness fill her heart she will doubtless seek what she has been taught is most desirable—ease, pleasure, and adoration. But this is not the only sample of young ladyhood that graces the precincts of the boarding-school. With less assurance and confidence the timid maiden takes her place in the classic halls. Just a glance is sufficient to show us her thoughtful, earnest

soul. She soon proves herself one of the finest pupils, but becomes quiet and reserved because her dress decides for her fashionable schoolmates that she is a poor man's daughter, and can not therefore be a fit companion for them. Thus she is given ample time to gain that knowledge which she seeks, and that for which she has left her humble home to acquire.

In fact, seminaries and colleges do not so much mould the character and fashion the motives and aspirations as the home does. The well-known adage, "As the twig is bent, the tree inclines," is very applicable in this case; and it is scarcely in the teacher's power to undo the work of the mother or guardian. Open as the childish heart is to impressions, the maiden with her quick perception and hasty impulses has nearly all the sense and feeling of a woman when she is sent to the academy of learning. Then if in the flush of praise and excitement she leaves it buoyed up with self-esteem and superficial wisdom, pity her that her instruction has been so false, and the pure instincts of her heart so choked by flattery and fashion.

The day, however, seems fast approaching in which we shall have no more cause to complain of the falsity and errors of her education than of that of the young man, and she is steadily and triumphantly advancing toward the highest standard to which her sturdy brother has yet dared to aspire. Again, the young lady of the present day is often accused of idleness, of an inability or an indisposition to labor

of any kind. Do you censure a boy for not becoming prosperous if you have never taught him a trade nor given him a profession? It is an indisputable law of nature that all artificial action must originate from some present propelling power, and this power for the young is the assistance and encouragement of parents or friends.

Do you expect your watch to serve you if you encase it in the finest gold, and after having it perfectly regulated, place it in your pocket, forgetting that it needs to be wound? I believe that many a young girl is at times unhappy in feeling herself a burden upon her friends, who would willingly, aye gladly, take her place among earth's active laborers had she ever received the slightest discipline necessary for battling with the world.

Certain authors grow eloquent in enumerating the different kinds of work in which women can engage; but when we come to the working-man we find he is not willing to make room for her, taking upon himself those parts of the labor which her inferior strength would not allow her to perform. The day is possibly approaching when working-men and working-women shall stand equal upon the same platform, but she does not now receive the same deference and respect from the world. But to return to the subject under consideration, we say bravo to the happy, free, independent American girl. What would our homes be without her? We can tell almost the moment we enter the home of a young girl. If we do not hear her merry laugh or song, we see some evidence of her presence there in a volume of pleasing literature, some piece of unfinished work, or an open instrument of music or whatever she chances to have the greatest fondness for. Plodding along with weary limb and heavy heart as we sometimes do, is it not pleasant and invigorating to meet the young, smiling face? We care not whether the body be clad in silk or cotton, the happy, hopeful, youthful face is one of the loveliest flowers to be found along the pathway

of human life. Then laugh, girls, and be merry,—it is one of your greatest charms, but remember, while you are seeking and giving pleasure, you should be learning life's lessons for future usefulness, and discipline yourselves for the burdens, trials, and sorrows of the world. G. V. H.

DRESS OF THE CHINESE.—A mandarin of the first rank has a red ball on his cap; the second class is indicated by a transparent blue one; the other grades are distinguished by white opaque blue, crystal, gilt, and other colors.

The dress of a Chinese lady consists of a short, loose robe, confined at the throat with a narrow collar. The robe is worn over a long, full skirt, and both are frequently made of richly embroidered silks. The sleeves are wide and sufficiently long to fall over the hands. The hair is gathered in a knot at the top of the head, and is fastened with golden bodkins, and adorned with flowers. They all wear trousers. Their tiny shoes are of satin, silk, or velvet beautifully worked with gold, silver, and colored silks. The soles are formed of layers of paper, one or two inches in thickness, and covered outside with white leather made of pigskin. The little girls are very becomingly attired in short dresses fastened at the throat, and worn over the full trousers. The hair, which is combed back from the forehead, hangs down on each side, and the back hair is plaited into one or two long braids, in which style it remains until the young lady is about to become a bride, when the more matronly fashion is adopted, and the braids and curls are formed into a knot interwoven with flowers and jewels.

The lower orders in the towns, men, women, and children, all wear loose gowns of nankeen cloth, usually dyed blue, without collars. The laboring men in the country work in large cotton trousers, with or without a gown over them, and a broad bamboo hat, which answers the purpose of an umbrella, to shield them from the sun and rain. A. M. D.

SOME BAD MANNERS.—Let our young folks stop to think that :

It is bad manners for a boy or man to go into any person's house without taking off his hat.

It is bad manners to use slang as well as profane language.

It is bad manners to use one's knife on the butter-dish.

It is bad manners to go into any person's house with mud or dirt on your shoes.

It is bad manners to talk in company when others are talking, or to talk or whisper in church.

It is bad manners to stare at strangers in company or on the street.

It is bad manners to say "yes" or "no" to a stranger, or to your parents, or to aged people ; let it be "yes, sir," and "no, sir"; "thank you," and never "thanks."

It is bad manners to pick your teeth at the table, and bad manners to pick them with a pin in any company.

It is bad manners to comb your hair and brush your coat in the dining-room.

It is bad manners to smoke or chew tobacco in public places, as well as injurious to the health.

It is a sign of low breeding to make a display of fine dress or ornaments.

"THE VOICE OF THE SEA."

ONCE more I sit by the "murmuring sea,"
And wait for a message of peace to me ;
But I miss the tender monotone
That used to answer to me alone.
There is none of the mournful symphony
So solemn, and sad, yet sweet and free ;
To-day, 'tis a gleeful surging rhyme,
And my heart rings back no answering chime.

The foaming breakers roll up as of yore,
With threatening brow and deafening roar ;
Then the stern lips curve in a rippling smile
As the billows are thrown up in pile upon pile ;
And there is swept up a foaming whirl of spray
That washes the prints from the sand away,
As though it would bear every grief and pain
From the aching heart and weary brain.

Countless dimples flash back to the skies—
A merry look of sweet surprise—
At the strength so gentle that joy could be
The sound that thrills through its melody.
'Tis I that have changed, O "murmuring sea,"
The child that once was no more can be ;
Thou art the same, strong, gentle, and grand—
'Tis my heart has grown dead as this cold gray
sand.

For oh ! 'tis as empty as the tenantless shell,
Reaching back for what *was*, and I often rebel

That my life seems as useless, and helpless my
hand
As the seaweed cast up on the storm-beaten
strand.
How lovely it looks, as I bathe away
The stains from each leaflet in ocean spray !
The worn shells show a lustre so pearly and
bright,
I shall treasure them ever to view with delight.

The waves wash with merriment over my feet,
Where the surge and the sand so seldom can
meet.

List ! what is the whisper falling soft on my ear ?
A still, calming voice, yet so silvery clear :
"Yes ! gather up what remains of thy life,
Wash away in the past every mark of the strife ;
Some hand or some heart may be better for thee,
As well as these baubles from under the sea.

"Had I kept them forever in sheltering embrace,
Thou hadst never been able their beauties to
trace ;

So thy soul some keen sorrow and suffering must
know

Ere the power of patience and love it can show."

Ah ! the message has come with the olden thrill
Of submission and love for the Master's will.

And again I receive my peace from Thee,

In the song of the breakers, O "Murmuring
Sea" !

L. A. I.

Santa Monica, Cal.



TRICHINOSIS, OR THE PORK DISEASE.

IN view of the present agitation of the commercial mind over the wholesale prohibition of American pork by certain European powers, it may prove of interest to many to consider the subject of Trichinosis, from the point of view of science. The histological data of two cases that occurred in New York were procured by the writer from microscopical observations made upon the infected muscle by Prof. J. C. Dalton, a physician of eminence.

For the history of one case which had occurred in the — Hospital, the writer is indebted to Dr. Harry Sears, of this city. The whole course of the malady, from the initial enteric symptoms through a typhoid stage with intense muscular pains, to the lethal or comatose termination, was so typical that a detailed clinical account of the case can be omitted. It should be stated, however, that shortly after the young man, a robust, strapping fellow, fell ill, his wife also took to her bed with well-marked symptoms of trichinosis and died not long afterward.

The living parasites were used for purposes of experimentation; and, while entirely new facts were not elicited, a few words may be said as to the results of various trials.

Encapsulated trichinæ (Fig. 1) are notoriously tenacious of life; but here immature, and only recently emigrated parasites, were found wandering about in

the muscles. A few of the animals had indeed already assumed the spiral coil position which is the preparatory stage

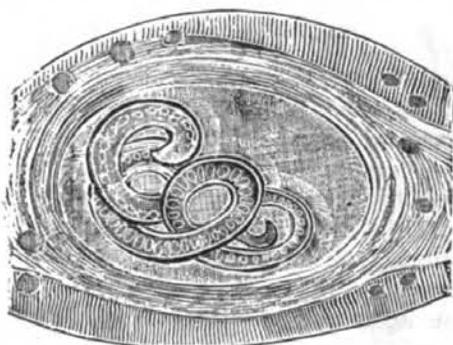


Fig. 1.—ENCAPSULATED TRICHINÆ.

of encapsulation; but the majority were either stretched out or twisted at either extremity (Fig. 2). Small pieces of the woman's muscles were exposed to the action of cold, being frozen several times; and examination, four days afterward, showed the animalcules apparently quiescent;

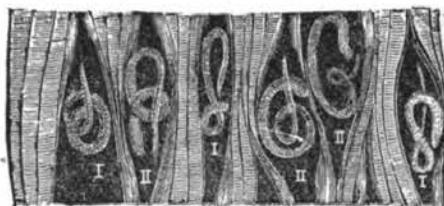


Fig. 2.—MALE AND FEMALE TRICHINÆ.

but a gradual elevation of the temperature to about 100° soon proved that their life was not extinct, in so far

as active motions on their part can be interpreted as an indication of vitality; and ten days later the parasites were still apparently alive. Some of the flesh was then allowed to undergo partial putrefaction; but even then the animals were found living, thirteen days after the death of the woman.

On the day following the autopsy, some fresh muscle was teased, and there being abundance of living trichinæ, many were thus isolated (Fig. 3). The animalcules

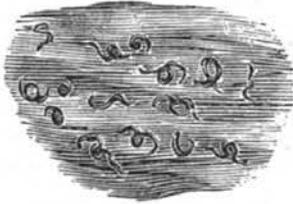


Fig. 3.—FREE TRICHINÆ.

were never seen to creep actually in a definite direction; but their movements resembled the unfurling and recoiling of a pennon; nevertheless, a change of place was now and then fortuitously effected. Next the parasites were subjected to the action of different reagents: saliva produced no visible effect upon them; dilute acids caused increased activity of motion; alkalis made them sluggish; concentrated solutions of ether killed them rapidly; in carbolic acid they squirmed and writhed before dying. Glycerine, contrary to what is supposed, did not immediately destroy them; for some lived ten minutes after its addition; finally, however, the worms became shrivelled up into almost shapeless filaments.

If previously heated, however, they retained their form to a great extent.

Some of the fresh muscle was submitted to artificial digestion by being placed in a suitable fluid and exposed for twelve hours to about blood heat. The fibre was in great part dissolved at the end of this time, and many free parasites were found in the liquid; but they were, if anything, less active than they had been, and, as soon as the liquid had been allowed to cool, their movements ceased, to be renewed, however, on re-heating the slide.

A noteworthy fact, and one of great interest, was that the trichinæ had unquestionably grown—they were larger. Still, though their size was increased, and although there were some indications of sex, a distinct evolution into mature males and females was not obtained. It must be admitted, however, that future experiments in the artificial breeding of these parasites may be more successful. Through an inadvertence the continuation of the artificial digestion was interrupted, and the animals were killed by overheating.

Pieces of partially putrefied meat were placed in vials containing water, with the addition of a small proportion of glycerine, carbolic acid, and alcohol; and in this liquid the parasites were maintained in a good state of preservation, showing the details of their interesting organization with satisfactory clearness.

Permanent specimens, no matter what technique of preparation was employed, were never found as perfect as recent ones produced from pieces of muscle thus kept. Of course fresh meat will answer still better than partly decayed flesh.

Concerning the pathological state of the infected muscles, the changes found were the frequently described conditions of acute myositis accompanied by vitreous metamorphosis, cloudy swelling, and fatty degeneration. In some places the inter-fascicular hyperæmia and small-celled infiltration were beautifully seen.

Small bits of the deceased woman's muscle were torn from the gastrocnemius and the deltoid muscles; and while some specimens contained numerous parasites, others were found without them. In the diaphragm, intercostal muscles, and other well-known places supposed to be favorite habitats of the parasite, every examined specimen showed them in abundant measure.

The result of observations in several cases at Bellevue Hospital has been that encysted trichinæ are found more frequently in the pectoral muscles and the diaphragm, than in the deltoids or the gastrocnemii.

In a discussion of this subject which followed Dr. Dalton's remarks before the New York Medical Society, the President remarked that the subject of trichinosis was now of very great interest to the country at large, and we should be anxious to get all the light possible upon it. Though a vast amount of labor had been expended on the origin, clinical history, and treatment of trichinosis, we have good reason to suppose that it was seldom recognized during life, and even after death would often escape notice; unless the examiner has his attention specially directed toward the possibility of its occurrence.

One of the points on which we need more information is the period of incubation; this is variously placed between ten and forty-two days; or, rather, according to our present ideas, it would take ten, but might require forty-two days, for the young trichinæ to appear in the muscles after the infected pork had been eaten. It is just upon this variable period that the produce dealers rely chiefly when they are prosecuted for selling trichinous meat. As most infected persons are Germans, who are in the habit of eating uncooked pork, more or less frequently, it is generally easy for the accused to show that other hams or sausages had been consumed during this period of forty-two days, than those sold by the accused; and as statements are to be found that a limited number of living trichinæ can be ingested without harm, it is almost impossible to secure conviction. Dealers therefore do not ask for an examination of hogs or their products; nor are they afraid of being convicted, even should they sell trichinous meat; hence it is particularly important to determine whether or not there is a variable time between the ingestion of the animal and the subsequent migration of the larval forms; and more experiments should be made on animals to determine it.

Another point for consideration is: How frequently is trichinosis met with? In Europe it is said to occur in from one

to two per cent. of all cadavers. In this country we have as yet no trustworthy data; at least this conclusion may be drawn from the recent report of Assistant Surgeon Glazier, of the U. S. Marine Hospital service. But it was actually shown that eight hogs out of one hundred were found full of trichinæ in this city. This percentage has been exceeded in Germany, where thirty-one hogs out of one hundred were found to be diseased. Living trichinæ may be swallowed in small numbers with impunity, yet the constant eating of pork, although but slightly infected, will eventually cause pain and impair the appetite; the skin will become slimy, and a thirst excited that can not be easily quenched.

The appearance of the male worm magnified will be seen in Fig. 4. In the adult state it was found to be 1.6 *m.m.* long (on the average), and 0.03 *m.m.* in diameter. It is quite different in size, shape, etc., from the female, which is shown in Fig. 5. The male shows at the posterior extremity two digital appendages situated laterally, and between which is the cloaca, which is reversed during copulation.

The female is generally from 3 *m.m.* to 4 *m.m.* in length, and 0.07 in diameter; the vulva is situated near the end of the anterior fifth of the body (\times No. 1); the ovary is simple; the ovules, seen through the integuments, have a diameter of 0.03 *m.m.*; the embryo, when hatched in the uterus, is about 0.12 long.

THE DEVELOPMENT OF THE EMBRYO.

The large number of the eggs, and the time required in the development of the



Fig. 4.—MALE

embryo from the ovule can be easily followed. There can be counted easily from 600 to 1,000 embryos, free eggs, etc., even

The ovule, as it appears in its early stage, is somewhat elongated; a few spots may be seen in the vitellus (6, 7), and by the time the ovule passes into the uterus it has become fecundated (8). There are somewhat larger eggs, in which are seen two vesicles, and are of different sizes, with nuclei, as seen in Figs. 8 and 9; Fig. 12 shows segmentation of the nucleus. This process of segmentation is carried on until about 50 to 60 cells have been formed, when the nuclei are not visible. The ova have now reached the length of .25 *m.m.*, and are somewhat less in width (13, 14). The mass of the cells now becomes contracted on one side, and presents a pyriform or almost a sausage form outline, and by further crooking, and spirits of juniper, it will



Fig. 5.—FEMALE.

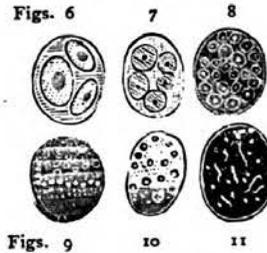
weeks after their production has commenced, without careful observation of the microscope.

In the intestines the females are found in the mucus, while the embryos are found on the surface of the mucous membrane, passing through the intestinal wall into the peritoneal cavity, through the medium of the connective tissue, then the embryos reach the muscles and destroy the fasciculi. In 10 to 12 days after infection the migration of the young trichinæ, the destruction of the muscle is at its height, then comes a remission, and the fruitfulness of the female entirely disappears.

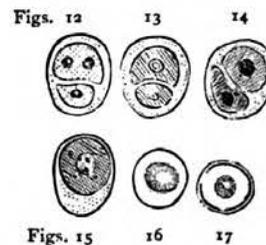
The embryo, first of all, in its course to the muscle, must pass through the intestinal wall, though not all will pass through the mucous membrane and muscular layer, and reach the connective tissue of the mesentery, between the two layers of which they continue their way to the vertebral column, and then to the muscles.

From 600 to 800 embryos and free eggs may be counted in the uterus and ovary of the mature worm at the same time, and from close examination their extension has been estimated at about five thousand per hour.

shrink to three-fourths its size (Figs. 15, 16). The worm is soon seen struggling with



a layer of fat in which is a regular layer of cells; the worm is fat and busy,—it must get through the fat before entering the flesh, and it now has the first image of a worm, as seen through the microscope, and is shaped as in Fig. 18.



The future position of the œsophagus is marked by a line of transversely elongated vacuoles. Yet the posterior portion is not yet developed from the blastoder-

mic mass (Fig. 19). In the further growth the muscular portion of the œsophagus appears, and finally the stomach is separated from the external wall (Fig. 20).



FIGS. 18 19

The embryos of the newborn trichinæ, which left their shell a few hours previously, develop and increase in size, and are from 0.08 *m.m.* to 0.12 *m.m.*; the whole development takes about two days, and the number of embryos that the female may bring forth is variously from 50 to 5,000.



Fig. 20.—DEVELOPMENT OF THE EMBRYO.

(a). Trace of outer portion of alimentary canal.
(b). Shows chitin tube and brain vesicles (magnified 500 diameters).

[To be continued.]

MILK—FROM THE HYGIENIC POINT OF VIEW.

MANY persons who discard meat, do not hesitate to partake freely of milk, eggs, sugar, butter, etc., and to use pastries, cakes and puddings, that are little else than a combination of these, with the addition, it may be, of spices and other seasonings. Now, a plain diet of Graham bread, with beef or mutton, roasted or boiled, and a fair allowance of fruits and vegetables, would be much more wholesome than the above articles, or the dishes that are manufactured out of them.

As to milk, it is the natural diet for the young. But for grown persons, and especially for those who live in cities, and who incline to sedentary habits, it is not the best, or one of the best articles of diet. Before arguing the question, however, let us make a note of the fact that milk is one of those secretions that is readily affected, not only by the food the animal eats, but by the conditions, physical or mental, of the creature itself. If the health of the cow deviates from the normal standard, the character of the milk is immediately changed; if she is mentally disturbed, as by anger or fright, the mammary glands will secrete, not a wholesome, but a poisonous fluid. A mother not unfrequently kills her child,

or throws it into spasms, by nursing it after she has been badly frightened, or after a violent fit of anger; and many a child has been "salivated, purged and narcotized by mercury, drastic purgatives and opiates, respectively administered to the mother."*

But the question is asked, "Suppose the animal is kept in the best possible condition, every way; would milk be objected to as an article of diet?" Most assuredly not—for young calves. Nature has provided the very food that is needed, for all her babes. The milk of the cow, like that of other mammals, including the human, is intended for the nourishment of the infant; and as soon as the calf is able to take more solid food, the maternal supplies, where nature is not perverted, are dried up. But the unnatural practice of milking cows has distended the milk glands, and thus converted them, in a large measure, into depurating organs; and the milk supply is not only increased, but prolonged beyond the period that nature intended. Add to this the improper foods, as swill-feeding, the confined air, and other unhealthful conditions with which the ani-

* Pavy's "Food and Dietetics."

mal is surrounded, particularly in large cities, and we have not only a prolific source of disease, but an explanation, in part at least, of the enormous death-rate among young children; this, it will be noticed, is always largest in cities, where the milk used is poorer in quality than country milk.

But returning to the direct question, suppose we have the *best* of milk, from perfectly healthy cows, what is the real objection to its use? To this question there are two answers; the first is founded on experience, and may be stated as follows: It is the almost universal testimony of persons of sedentary habits, dark complexions and "bilious temperaments," that milk, even of good quality, does not agree with them; and where there is torpor of the liver, or other dyspeptic conditions, it usually causes distress. The reason of this will directly appear. As already stated (and herein is the *second* answer), milk is designed by nature for the young of all mammals; it contains a small per cent. of solid substances, but *enough* for the needs of the infant; and these substances are just the elements, and in the *right proportions*, to make those soft, fatty tissues which the little creature needs for the protection of its small bones and delicate organs. As the child or young animal grows, and the teeth develop, other and more solid materials should take the place of the milk; this change must, of course, be gradual. Many mothers do their babes harm, and in fact make them sick, by giving them solid food before they are able to masticate it properly. And no less detriment is done to the full-grown

child, when we give him an aliment that requires *no* mastication with the teeth, and which is designed only to make soft, "baby tissue." Such food is now needed as will make good, firm muscles, sinewy tendons, strong bones, and all the other tissues that belong to the adult man or woman.

"But how about cream?" Well, cream, if used to the same extent, would perhaps be more injurious than milk; it contains an abundance of fatty material, and if habitually taken is a prolific cause of biliousness. Young children that are fed largely upon cream—or butter, or meat, particularly fat meat—become gross and plethoric, and are apt to break out with boils, or "scald-head"; or if a nursing mother uses these articles to excess, her child will suffer in consequence. Ordinarily, cream does less harm than milk, from the simple fact that it is served in a very limited quantity; that is, as a *condiment*, rather than a beverage; and it is less employed than milk, even as a mixing material in breads, puddings, etc. For grains, mushes, plain puddings, etc., the juices of fruits make a far more wholesome dressing than cream; and were we in the habit of using fruits in this way, the palate would not only tolerate readily the new combination, but we should come to like it.

Milk, if used, should be taken, not as a beverage, but as a condiment, and then very sparingly, particularly by those persons who live in cities and whose work is indoors and of a sedentary character; while invalids, as a rule, would certainly be better without it.—*Health in the Household.*

THE CARE OF THE SICK.

"IF he is asleep when the time comes around, shall I wake him up for his medicine?" asked the nurse.

"No, no, never. Sleep is, in almost every sickness, better than any medicine."

This was the opinion of a learned and

prosperous physician, and, as the opinion is doubtless sound and good, it shall be the basis of a brief paper on nursing the sick. The only point to which I would draw attention is one almost universally disregarded and never esteemed vitally important, as it really is. It is the abso-

lute importance of *quiet* to insure the proper effect of treatment and the steady improvement of the patient.

No one who has not gone through with what is called a fit of sickness can understand the value and blessedness of quiet in the sick-room. There are two ways of learning it: one is by enjoying it; the other is suffering the want of it. I have been in hospitals where hundreds and thousands of patients were enduring the pangs of wounds and bruises and sores, and have seen the influence of distracting noise upon the prostrate army of sufferers. I have been in the chamber of sickness where a single patient was soothed in his pains by the gentle power of a tender tone and the more potent spell of perfect silence.

I was years ago myself prostrated by fever and brought very low, so that to others it seemed the gates of death would open and let me in. At such times, the voices of loving friends in conversation were so trying to my nerves that I longed for wings to fly away. If they spoke low, I strained every hearing nerve to catch their words; if they conversed in ordinary tones, it was like harsh music and nearly drove me out of my senses. They would have given their right hand to do me good; but if they had only thought of my ears and the brain they were distracting, they would have given me the precious boon of silence, more valuable to me than gold or love.

From the sick-room all persons but the patient and the nurse should be excluded. Whatever assistance is required should be within easy reach; but the less the number in the room, the less temptation to converse. If a physician is in attendance let his directions be obeyed, and discharge any nurse at once who knows so much more than the doctor as to determine whether his prescriptions are the best or not; or dismiss the doctor and instal the nurse in his place. In a battle with death there should be only one captain. If other members of the family besides the one in charge are admitted, let them enter softly, minister to

the sufferer their loving offices and retire; soothing and not disturbing him by their voices or steps.

Let your feet be shod with a preparation of such peace as shall render your footfalls inaudible as you move about the room. Squeaking of heavy shoes is an intolerable annoyance to a sick person. If yours are not so soft as to be perfectly silent when you tread, cover the soles with wool or woollen cloth, and be sure that no one comes into the room on any errand whatever, whose steps are a disturbance to the quiet you have ordained.

Shut out, as far as possible, the noise of the street. In this country an impression appears to prevail that everybody has a right to make all the noise he pleases, and that nobody has any right to quiet which anybody is bound to respect. Hence the locomotive engineer amuses himself during the darkness of the night (as a man whistles in passing a graveyard) by filling the whole country with those terrific shrieks, which the Modocs and Comanches combined could not parallel, and which invariably suggest the yells of emancipated fiends. The sleepers in a thousand homes are startled from their slumbers. Nervous invalids are frightened into fits. Infancy is made to imitate the scream. And so from Boston to St. Louis, from Albany to Atlanta, every night, this long, rasping, excruciating, destroying yell—useless, as has been abundantly proved, and often fatal in its effects—is inflicted upon the peace and health of a long-suffering people. This is one of the penalties of liberty; and this is one of the nightly terrors of the country.

In the city our street noises are chiefly in the day and evening. We have boards of health with extraordinary powers, but those powers are more powerful not to do than to do. They are in a perennial battle with the makers of foul smells, but every night is a silent, nasty witness that the smell-makers are mightier than the boards of health. By what charter has the man now passing my door ob-

tained the right to put a lot of big bells of various patterns on a string across the rear of his wagon, and with this horrid discordant clang, to go up and down the street to buy old bottles? Five or six of these men keep up the procession all day long, and a half-dozen dogs with carts and bells, and then the sharp cry comes through the window-pane, enough to crack it, from the man who means to say, "Glass put *in*." And one scream succeeds another, drowned perhaps by the inevitable organ-grinder, who has a prescriptive title to torment us with his execrable music. His seem to be the *ne plus ultra* of abominations, until the itinerant band, with cheeks and instruments of brass, plant themselves at the front door, and, without asking anybody's leave, inflict their whole *repertoire* upon the unwilling and unoffending victims. You may shut your windows, fly to the attic, take refuge in the cellar, or bury yourselves in pillows, but the wails of those street players—eight stout men blowing with might and main—pierce

the deepest hiding-place you seek and vex your wearied soul. If the *well* are thus distracted by these peripatetic blowers, what must be the miseries of the sick, who are compelled to hear!

Shut out these noises if you can. In vain will you ask help of man. The world is governed now by sham politicians, and they care not for the sick and dying, who do not vote. Keep your poor patient in the quietest room in the house, and fight steadily against the intrusion of noise from without.

Let in the sunshine. The sun has healing in his beams. Keep the room just as light, by day and night, as is pleasant to the patient. Regulate it so as not to disturb his repose; but, whenever his eyes are open, let them have pleasant objects to rest on; not a horror of great darkness, nor grotesque shadows, which to him assume the form of monsters. Light is cheerful; darkness is depressing and death-like. Open the windows for sunshine and air.

A PHYSICIAN.

CLEANLINESS IN THE KITCHEN.

A CORRESPONDENT of one of our Western monthlies took occasion a while ago to rebuke those housekeepers that are inattentive to what they consider little, unimportant matters, like keeping wash-cloths thoroughly clean, and pointed out the hygienic reasons for her admonition. She said with commendable emphasis: "When some of you are down with fever; when neighbors are neglecting their own work to nurse you; when doctors are hunting in cellars and old drains for the cause, let me whisper in your ear—look to your dish-cloths. If they be black and stiff and smell like a 'bone-yard,' it is enough—throw them in the fire, and henceforth and forever wash your dishes with cloths that are white, cloths that you can see through, and see if ever you have that disease again. There are sometimes other causes, but I

have smelled a whole houseful of typhoid fever in one 'dish-rag.' I had some neighbors once—clever, good sort of folks; one fall four of them were sick at one time with typhoid fever. The doctor ordered the vinegar-barrels whitewashed, and threw about forty cents' worth of carbolic acid in the swill-pail and departed. I went into the kitchen to make gruel; I needed a dish-cloth, and looked about and found several, and such 'rags'! I burned them all, and called the daughter of the house to get me a dish-cloth. She looked round on the tables. 'Why,' said she, 'there was about a dozen here this morning'; and she looked in the wood-box and on the mantel-piece, and felt in the dark corner of the cupboard. 'Well,' I said, 'I saw some old, black, rotten rags lying round, and I burned them, for there is death in such dish-cloths'

as these, and you must never use such again.'

"I 'took turns' at nursing that family four weeks, and I believe those dirty dish-cloths were the cause of all that hard work. Therefore, I say to every house-keeper, keep your dish-cloths clean. You may wear your dresses without ironing, your sun-bonnets without elastics, but you must keep your dish-cloths clean. You may only comb your head on Sundays, you need not wear a collar unless you go from home; but you must wash your dish-cloth. You may only sweep the floor 'when the sign gets right'; the window don't need washing, you can look

out at the door; that spider web on the front porch don't hurt anything; but, as you love your lives, wash out your dish-cloth. Let the foxtail get ripe in the garden (the seed is a foot deep anyway), let the holes in the heels of your husband's foot-rags go undarned, let the sage go ungathered, let the children's shoes go two Sundays without blacking, let two hens sit four weeks on one wooden egg; but do wash out your dish-cloths. Eat without a table-cloth; wash your faces and let them dry; do without a curtain for your windows, and cake for your tea; but, for heaven's sake, keep your dish-cloths clean."

INDICATIONS OF SCARLET FEVER.

IT is difficult for the experienced physician to distinguish always with exactness between eruptive fevers in their early stages, because there is a relation in their origin, in so far as functional derangement is concerned. With respect to the dangerous malady we now briefly remark upon, it may be said that in a typical case, a short time after exposure, the person shows a quick pulse, a marked rise of temperature, headache, perhaps vomiting, a scarlet rash—first on the neck, then on the chest and limbs—sore throat and swelling of the submaxillary glands (those under the lower jaw). But there may be wide variations from this typical and readily distinguishable form. A child under three years dies suddenly in convulsions. It may be a case of scarlet fever. But the only proof, if any, will be in others being taken down with it. Even a post-mortem examination will exhibit no sign of it.

Again, a child not known to have been exposed to infection exhibits a very swollen throat. Even the doctor may think it to be quinsy; as in quinsy, too, one side of the throat is swollen more than the other. There is, as yet, no rash. It may be scarlet fever; it may be measles or mumps. What shall be done?

Prudence would advise—Separate the child from other children and wait. Within thirty-six hours at the furthest, if it is the dread disease, the rash will appear. But even this may not be decisive, for the rash may not resemble the distinctive rash, being darker, pimple-like, and itchy, causing the patient to scratch, and thus alter its appearance. In quinsy, however, the temperature is intermittent; in scarlet fever it is continuously high.

In another case, the disease is so mild that all the symptoms are slight. The pulse may be quickened some; there may be redness of the skin in parts, but it may have had other causes; there may even be some eruption, but not distinctive; there may be no sore throat and no fever. The child eats as usual, and plays about. At length the cuticle peels off, and all doubt is removed.

This form, however, is the most dangerous of all others, for no remedial measures are likely to be taken until the child has become a centre of contagion, and is likely afterward to have kidney complaint and other serious diseases. In a case of this kind, if a child is known to have been exposed to the disease, a doctor should be called in, however slight the symptoms.

In another case, the disease expends its force on the throat, the nasal passages, and the larynx, or upper part of the windpipe. There may be no rash in the least; no desquamation or peeling of the scarf skin. There may be in the back-mouth a false membrane, and the disease be mistaken for diphtheria; and yet it communicates to others not diphtheria, but scarlet fever.

HOT WATER FOR INFLAMED MUCOUS SURFACES.—Dr. George R. Shepherd, of Hartford, Conn., adds his testimony to that of many others by saying in the *Medical Record*: "I have used hot water as a gargle for the past six or eight years, having been led to do so from seeing its beneficial effects in gynecology. In acute pharyngitis and tonsillitis, if properly used at the commencement of the attack, it constitutes one of our most effective remedies, being frequently promptly curative. If used later in the disease or in chronic cases, it is always beneficial, though perhaps not so immediately curative. To be of service it should be used in considerable quantity (half a pint or pint) at a time, and just as hot as the throat will tolerate. I have seen many cases of acute disease thus aborted, and can commend the method with great confidence. I believe it may be taken as an established fact that in the treatment of inflammations generally, and those of the mucous membranes in particular, moist heat is of service, and in most cases hot water is preferable to steam. All are familiar with its use in ophthalmia and conjunctivitis, as also in inflammation of the external and middle ear, and I feel confident that those who employ it for that most annoying of all slight troubles to prescribe for, viz., a cold in the head or acute coryza, will seldom think of using the irritating drugs mentioned in the books, nor of inducing complete anæsthesia with chloroform in preference to the hot-water douche."

DISPOSING OF RUBBISH.—What to do with the refuse is one of the annoyances of domestic life that constantly besets the housekeeper. People are ready with one suggestion or another, that may be found quite impracticable in a given case. No better method has occurred to us than that of burial; and a writer in the *Country Gentleman* thus commends it:

"Every family which occupies a house of its own, the members of which desire neatness about the premises, is often puzzled to know how to get rid of all all sorts of rubbish, such as broken glass, rusted stove-pipe, brick-bats, broken crockery and lamp-chimneys, old hoops, etc., etc., which are often thrown in unsightly heaps behind fences and outbuildings. The only satisfactory oblivion to which they can be consigned is burying. They may thus be made to subserve a useful purpose, by forming a portion of the filling of ditches. If farm drains are cut, they may be made to occupy a foot of space next above the tile at the bottom, and the two feet of earth above them will place them where they will never be seen again, while at the same time they will contribute to the discharge of the water above into the drain. Those who are cutting and filling ditches late in autumn may easily get rid of all the unsightly heaps of rubbish on their premises.

"To prevent the accumulation of such heaps a short ditch of good breadth may be commenced at the lower end, and be cut long enough to receive all the rubbish required, a tile being first laid at the bottom for the safe discharge of any water. The next year another portion may be added next above this, and so on. By this arrangement, there need be only a small opening at a time; and this opening, if in the rear of a garden or adjacent field, may be obscured from sight by planting thick corn or sunflowers on its banks. There are many portions of the premises which would be improved by cutting such short drains, and the owner may thus accomplish two desirable objects by one operation."

NOTES IN SCIENCE AND AGRICULTURE.

A Preventive of Hydrophobia.

—It is announced that the experiments of M. Pasteur and his associates have reached certain encouraging results in their attempt to secure a method to prevent the occurrence of hydrophobia, should one be bitten by a rabid dog. Assuming the principle as true,—in the case of the canine virus that had been obtained from previous experiments in inoculation,—that the poison of an infectious disease, on its passage through different species of animals, is subject to alteration in virulence, M. Pasteur inoculated monkeys with the virus taken from a dog affected with rabies, and found that the poison, after having passed in succession through three monkeys, becomes so attenuated that its inoculation into a dog is harmless, while a dog so inoculated is rendered proof against the original disease. But, on the other hand, the virus of rabies on its passage through the rabbit and guinea-pig increases in virulence. The maximum increase in intensity is not, however, attained until several transmissions through the rabbit or guinea-pig.

After many experiments he hit upon the expedient of inoculating the brain of a dog with the virus of rabies. The animal selected is fastened to a frame, and rendered insensible by means of chloroform. The process of removing a small portion of the skull, and introducing the virus into the brain, is thus performed without pain to the victim. By this method of inoculation the operation of the virus is hastened, so that instead of in two or three weeks, the effects appear within a few days. M. Pasteur not only gained time by this process, but was rewarded by the discovery that rabies is a malady of the brain.

It is interesting, in a certain sense, to accompany M. Pasteur through the rooms where these experiments are carried on; but it requires a good deal of nerve to watch the animals as the stage of rabies approaches. They are confined in cages with strong iron bars, for the security of those who are in charge, and who have the task of feeding the animals. A sliding-door is drawn up just enough to admit a dish containing the food, which is pushed along the floor of the cage by means of a stick.

The French Government has appointed a commission of scientific men to assist and note these interesting experiments, the names of Villemin, Vulpian, Bert, and Bouley lending no small weight to the prospective results of the inquiry. The test experiments, as proposed by M. Pasteur, consist (1) in causing twenty unprotected dogs and twenty "vaccinated" dogs (presumably protected thereby from the poison) to be bitten by dogs in a rabid state; and (2) in artificially inoculating with the virus of rabies two other sets of twenty dogs, respectively vaccinated and unvaccinated. "The twenty vaccinated

dogs," M. Pasteur claims, "will resist the poison, and the other twenty will all die of madness." The final result of these trials can hardly fail to be largely decisive of the question, one way or the other.

Hints on Varnishing.—Before any article is varnished it should be thoroughly cleansed from all grease spots with plenty of hot water, soap, and soda, which must be well washed off. It is also essential that the article to be operated upon should be perfectly dry.

The following is a good varnish for rustic seats: Boil one quart of boiled linseed oil and two ounces of asphaltum, over a slow fire, till the asphaltum is dissolved, the mixture being kept stirred to prevent boiling over. This gives a fine, dark, oak color, is not sticky, and looks well for a year. Or first wash the furniture with soap and water, and when dry, on a sunny day, brush it over with common boiled linseed oil; leave that to dry for a day or two, then varnish it over once or twice with hard varnish. If well done this will last for years, and prevent annoyance from insects. A common black varnish, for wood and iron, may be made by mixing 1 gallon of coal tar with half a pint of spirits of turpentine and 2 ounces of oil of vitriol, stirring the mixture briskly until the ingredients are thoroughly incorporated. A fine kind may be made by adding 4 ounces of asphaltum and 8 ounces of burnt umber to 1 gallon of boiled linseed oil. Grind the umber smooth with a little of the oil, and add to it the asphaltum previously dissolved in a pint of the oil by heat, then add the remainder of the oil; boil, cool, and thin with turpentine to the proper consistency, or melt 2 pounds of asphaltum in an iron pot; add of hot boiled oil 1 pint, mix well, cool, and add 2 quarts of oil of turpentine. A good varnish for white wood is made by dissolving 3 pounds of bleached shellac in 1 gallon of alcohol; strain and add 1½ gallons more of spirit. Fine, dry, warm weather should always be chosen for varnishing operations.

How to Grease a Wheel.—A well-made wheel will endure constant wear from ten to twenty-five years, if care is taken to use the right kind and proper amount of grease; but if this matter is not attended to, it will be used up in five or six years. Lard should never be used on a wagon, for it will penetrate the hub, and work its way out around the tenons of the spokes, thus spoiling the wheel. Tallow is the best lubricator for wooden axle-trees, and castor-oil for iron hubs, but many of the patent axle-greases are also excellent, and have the merit of being cheaper and more convenient to handle. Just grease enough should be applied to the spindle of a wagon to give it a slight coating. This is better than more, for the surplus put

on will work out at the ends, and be forced by the shoulder-bands and nut-washer into the hub around the outside of the boxes. To oil an iron axle, first wipe the spindle clean, wetting with spirits of turpentine for that purpose, and then apply a few drops of castor-oil near the shoulder and end. One teaspoonful is sufficient for the whole.

When Children should go to SCHOOL.—Dr. Jacobi has made this a special study from the stand-point of physiology. His conclusion is, that, as a rule, a child should not be sent to school before he is eight years old. Not till this age is its brain substance sufficiently developed. An infant's brain is soft. It contains a large percentage of water. It is deficient in fat and phosphorus, on which, to a large extent, intellectual activity depends. The convolutions are fewer.

The different parts of the brain do not grow in size and weight alike—the normal proportion of the front, back, and lateral portions not being reached before the age of ten. So, too, the normal proportion of the chest to the lower portions of the body is not attained until the eighth year, while that part of the back (the lumbar), on which the sitting posture mainly depends, is even then only moderately developed.

About the fifth and sixth years the base of the brain grows rapidly, the frontal bones extend forward and upward, and the anterior portion grows considerably. Still, the white substance—the gray is the basis of intelligence—and the large ganglia preponderate. It is not until about the eighth year that the due proportion of parts is reached, and a certain consolidation, both of the brain and the organs of the body generally. Before this period, memory alone can be safely trained.

Froebel, the founder of the kindergarten system, reached a similar conclusion by observation. Jacobi recommends that children be entertained and gradually developed in the kindergarten. "Here," he says, "their activity is regulated, their attention exercised, and their muscles invigorated. Both imagination and memory are taxed to a slight degree only. With increasing years, the gray substance becoming more and more developed, their thinking powers are gradually evolved. The secret of a thorough education lies in the uniform development of all the powers. To develop one at the expense of the others is to cripple all."

"Queen Anne" Style in Building.

—A writer in *The American* thus fitly characterizes this so-called class of architecture :

"I have never been able to find any one who could lucidly define the new style, or formulate the principles that govern its designers. But no one will deny that there is a new influence at work in modern architecture, even if they can not analyze it. The fact is that modern work defies classification, simply because its distinguishing character-

istic is eclecticism. The selection of incongruous material from the older styles, and the attempt to weld them into homogeneity, are not likely to conserve the sterling principles of good design. Queen Anne has little significance as a name. Popular considerations have more to do with it than anything else. Among the better class of architects the name is held in derision as the work of those who ape foreign fashions. Architecture is something more than a matter of fashion.

"The new movement, however, has a well-defined influence which has nothing to do with the appropriateness of its name. Its real significance is to be found not in its definite features as a style, but as showing how completely modern work has broken away from the spirit of the past and the principles of good design that formerly acted as a restraining influence. Up to a comparatively recent period architects have worked in, or under, the influence of schools of architecture; that is to say, certain styles were followed and developed at one time, and in which most architects made their designs. In France can be seen to-day an instance of a school of architecture dominated by the vigorous central influence of the *Ecole des Beaux Arts*. With us, however, architects seek to be distinguished by the individuality of their work. The road to success lies through the tempting fields of eclecticism. In old times every man worked after his own method, but he kept the great principles of the style always in sight. There was to a certain extent a standard that might be appealed to, and by which the work could be judged. A controlling unity and fitness were acknowledged, but this did not prevent original conceptions. It was simply the restraint of law and order. As far as modern architecture has any tendency at all, I think thoughtful people must admit that it does not move in the direction above pointed out.

"There are few architects, even among our older men, who have not had their work affected by the fashionable demands of the day. This is especially noticeable in the designs for country houses. It is admitted that the new style has been rather unproductive of sterling results in the more important secular and ecclesiastical work. Here its failure is striking. Logical principles are here lost sight of, and the rage for 'something new' has resulted in a radical chaos. The conservative reaction has not yet fully set in. Perhaps when it does, something good may result."

Steaming and Bending Wood.—

In an address recently delivered by Mr. H. G. Shepard, of New Haven, Conn., relative to the use of wood in carriage-making, he said that after a piece of wood is bent its characteristics undergo a considerable change. The wood is heavier, and its fibres have become interlaced; it will sustain more pressure and strain than straight wood in the same directions, either across or with the grain. He

said: "A piece of timber that has been steamed, whether it is bent or not, has its stiffness increased. It is more brittle than it was before, and for some uses it will do as well, and yet there is a quality that the steaming process and the kiln-drying process produce in much the same way,—they both cook the gum in the timber, and make it brittle and stiff. There is a kind of hickory that never becomes stiff by a natural process of drying; and one of the desirable qualities of a spoke, rim, or whiffletree is stiffness as well as strength. You take that hickory,—and it is the very best we have,—and steam it, and it is better fitted for these purposes than it was before. It is difficult to tear apart a piece of bent wood; the fibres are interwoven, one with the other. We do not perceive the change on the outside, but when we come to split the stick open, we find that its character is entirely changed."

The Artistic Relations of the TRANCE.—The relations of the Artificial Trance to Oratory and Song have been hinted at by different writers, but the bearing of this subject on Painting and Plastic Art as suggested by Dr. Thwing, of New York, before the Academy of Sciences is novel and striking. At the last meeting of the Academy before the summer recess, he remarked:

"What artifice can not feign and what art itself may fail to secure in the personation of thought and passion, this process may create, control, and preserve. If attitude, gesture, and silent histrionic expression alone be sought, the subject may sit or stand in the ordinary hypnotic state. He will be motionless. The artist I employed remarked that the posture was more fixed in the case of the hypnotized, than when the person was recalled to a normal condition and the fixed iron rest for the head was used. Repeated experiments were improvements on the first. Fatigue and embarrassment are elements wholly eliminated. If these *tableaux vivants* are models for the painter; if passion by look and movement be sought, the waking trance is induced. As a photographer throws up or enlarges a portrait by means of proper lenses, so a hypertrophied image is made on the mental screen of the hypnotized, as on a *tabula rasa*. The will of the operator, like the lens, determines the size, that is, the intensity of emotion to be generated. The trance of death often illumines a face with supernal brightness; so I have by a graduated series of suggestions changed a countenance of quite ordinary intelligence into climacteric degrees of ecstasy, until the patient seemed to faint, overpowered by emotion. No clay model, no articulated skeleton can equal the living form in delicate adjustments. A shapely arm, a dimpled cheek, a curving neck, or noble head may be set off to the best advantage, while the owner is wholly insensible to everything but to the suggestions of the director. No training is needed, in many cases. In the first experiment with a person in Boston, the success was complete.

A radiant smile lingered on the face, and the figure of the sleeping statue was changed and fixed at will. Experiments in New York are equally successful."

Every neurologist and alienist is familiar with these phenomena in disease, fixity of posture, insensibility to sensory impression, or to suggestion from without. The same conditions exist in health in the case of many. Transitory effects artificially induced, may be regarded as acted dreams, simple and harmless if wisely directed, and helpful aids to plastic art and to histrionic impression. This application of hypnotism to art-study is certainly unique and has its special attraction.

Running a Farm.—The impression that "anybody can run a farm" would be a matter for astonishment were it not so commonly met with. The writer of this at one time had some connection with a State institution belonging to which was a farm of some hundreds of acres, carrying a large quantity of stock. In case of a proposed or expected change of farmers some of the applications for the position were as astounding as amusing. Men who had never been able to make a living for themselves; men who had filled some low position in towns; men who could not read or write; men whose only claim to knowledge of farming was that they had lived on a farm when boys; idle, drunken scamps; street loafers—literally all these counted themselves abundantly qualified to take charge of \$50,000 worth of property and successfully manage it. It has usually been easy to make a living on American farms, but we fully believe there is no legitimate business which requires more ability and sound judgment than does farming, if the highest success is to be secured. Mr. Gladstone not long since said in effect, that it required more skill and good judgment to manage a farm employing a given amount of capital than to manage a manufacturing or mercantile business with equal capital. He was referring to England, but the statement is not far from correct in America. We need hardly say that no line of farming more decidedly calls for intelligence, sound judgment, business knowledge and capacity, than does the caring for and management of improved stock.—*Breeders' Gazette*.

Variations of the Magnetic Pole.—Professor Thompson, in a lecture at Glasgow, stated that the magnetic pole is now near Boothia Felix, more than 1,000 miles west of the geographical pole. In 1657 the magnetic pole was due north, it having been eastward before that. Then it began to move westward until 1816, when the maximum was reached. This is now being steadily diminished, and in 1976 it will again point true north. Professor Thompson says that the changes which have been observed, not only in the direction but in the strength of the earth's magnetism, show that the same causes which originally magnetize the earth are still at work.

The Quiet Life.

Happy the man whose wish and care
A few paternal acres bound,
Content to breathe his native air
In his own ground.

Whose herds with milk, whose fields with
bread,

Whose flocks supply him with attire ;
Whose trees in summer yield him shade,
In winter, fire.

Blest, who can unconcern'dly find
Hours, days, and years slide soft away
In health of body, peace of mind,
Quiet by day.

Sound sleep by night ; study and ease
Together mixed ; sweet recreation,
And innocence, which most doth please
With meditation.

Thus let me live, unseen, unknown ;
Thus, unlamented, let me die ;
Steal from the world, and not a stone
Tell where I lie.

ALEXANDER POPE.

Next Meeting of the A. A. S.—The British Association for the Advancement of Science will hold its meeting for this year in Montreal, opening August 27th, while the American Association will meet in Philadelphia on September 4th. It would be a most happy event if the prominent members of the two societies could make the arrangement to have a joint session of the British and American Associations, the opportunity for which will probably never be more feasible than when the British Association is upon our side of the Atlantic. We understand that the fellows of the American Association have been invited to join in the British meeting, and a reciprocal invitation has been extended to the members of the foreign society. The concurrence at or about the time of this meeting of the Electrical Exhibition of the Franklin Institute will add much to the interest of scientific people in these two great bodies.

Elephant Sagacity.—A writer in *Vanity Fair* relates this incident :

"I once asked an Indian road officer what was the cleverest act he ever knew an elephant to perform ; and he told how once, when unloading some steel tubing from on board a ship, it was the elephant's task to carry the pipes by means of his trunk from one part of the wharf to another. The pipes had been oiled to prevent them from rusting ; and, when the elephant took one up, it slipped from his grasp. He tried it again with the same result, and at last seemed to comprehend what the reason of all this was ; for he soon afterward pushed the pipe with his foot to where there was a heap of sand, and then rolled the piping backward and forward. The sand, owing to the oil, adhered to the tube ;

and the elephant then put his trunk around it and carried it with ease. He did the same to the remainder without aid or suggestion from his mahout."

Habits of California Ostriches.

The editor of the *Anaheim (Cal.) Gazette* has been viewing the ostriches on a ranch near Cost Station. He says :

"The female lays an egg on alternate days to the number of fifteen, when, if permitted to set, she considers her work done. If, however, her eggs are taken from her, she will lay thirty before she discovers the deception. And such eggs ! The one showed us weighed three and a half pounds, and contains food sufficient to furnish a plentiful breakfast for four men. One would suppose that the flavor of such eggs would be unpleasantly pronounced. Such is not the case, however, the flavor not being as decided as that of duck's eggs. What school-boy has not read of the ostrich egg, and of its being hatched in the hot sun of Africa's sunny shore ? But this pretty little legend, like many other cherished stories of the past, is all gammon. The chicks are brought forth in the good old way. The female sits on the eggs in the day-time and the male assumes that duty at night, allowing the female to seek rest and recreation while he attends to the household duties. It must be noted here that the male is much more solicitous for his household than is the female. It not unfrequently happens that the latter prefers to gad about rather than take her turn at setting, and on such occasions her lord and master administers to her a deserved chastisement by kicking her heartily around the paddock until she manifests proper contrition and signifies her willingness to settle down on the eggs. There is a moral somewhere about this incident which when found make a note of."

Useful Cistern Tables.—The following gives the contents, in gallons, of cisterns for each inch in depth at the given diameters of the cistern. For instance, a cistern 7 feet in diameter holds almost 24 gallons for each inch of depth :

Diameter.	Gallons.
2 feet equals.....	1,050
2½ feet equals.....	3,050
3 feet equals.....	4,406
3½ feet equals.....	5,997
4 feet equals.....	7,833
4½ feet equals.....	9,914
5 feet equals.....	12,240
5½ feet equals.....	14,810
6 feet equals.....	17,625
6½ feet equals.....	20,685
7 feet equals.....	23,988
7½ feet equals.....	27,540
8 feet equals.....	31,333
8½ feet equals.....	35,279
9 feet equals.....	39,486
9½ feet equals.....	43,940
10 feet equals.....	48,620
11 feet equals.....	59,240
12 feet equals.....	70,510
13 feet equals.....	82,739
14 feet equals.....	95,960
16 feet equals.....	135,430
25 feet equals.....	306,999



FOWLER & WELLS Co., Publishers.
H. S. DRAVTON, A.M., M.D., Editor.

NEW YORK,
AUGUST, 1884.

THE TEETH OF THE FUTURE.

IN an able address recently delivered, Mr. Spence Bate, F.R.S., has drawn attention to some remarkable features which it may be interesting and instructive to take into account. In the teeth of the Esquimaux, the Red Indians, and the natives of Ashantee, as well as those found in the ancient barrows of England, the so-called interglobular spaces, seen so frequently in sections of modern teeth, appear not to exist; nor, indeed, are they to be detected in the dentine of the best-developed structures of the modern European. Not only is the dentine getting deteriorated, but the enamel would seem likewise to be undergoing a modification—becoming too opaque. In addition to the histological changes, the external form and character of the teeth are sustaining an alteration. This seems to be in relation to an important feature in the history of their evolution. The tendency for the cranium to develop at the expense of the face and the jaws is seen to occur as we ascend the scale of the vertebrated series of animals. Owing to this atrophy of the jaws, the proper space for the full play and development of the normal teeth would seem not to be available. At birth the bones are not sufficiently grown to receive the teeth in their normal arch; and, as in the human mouth the premaxil-

lary bones are firmly united a short time after birth, it follows that the posterior part of the jaw is the only place where growth can occur. Any delay in the development and consolidation of the symphysis must have the effect of contracting the space required for the teeth at this site. In the course of vertebrate evolution there is a marked tendency for teeth to disappear. The lower vertebrates have four molars on each side in each jaw, the higher have three, whilst in man the number is reduced to two.—*The Lancet.*

The necessity of supplying material for the development of the osseous structures is too manifest to require argument. In our rapid modern life, the consumption of proximate substance is very rapid, the brain and nervous system being the chief consumers. The imperfect evolution of the jaws and teeth to which Mr. Bate refers, shows that the modern European either does not eat the food that supplies abundantly the limey constituents needed for perfect bone growth, or does not digest it. The Esquimaux, Indians, and Ashantees devote more time to eating and digesting than the representatives of modern civilization, and consequently their blood is more nourishing to organic function, and the waste of bone and muscle is better compensated. The proverbial weakness of mothers in the refined classes of society is largely due to innutrition, which can not be offset by any method of medication. Nature has but one method of making a body sound, strong, and harmonious: and that is through a pure and vigorous circulation. Give her the material she requires and the time for thorough assimilation, and she will build up a structure of bone, muscle, and nerve that can efficiently meet the demands of life.

The brain grows at the expense of the bony system; its forced activity absorbs

the phosphatic substance of the blood and leaves little for jaws and teeth; hence the tendency of cranial development. We question the necessity of this abnormal activity; and we are doubtful of its utility to the race in the final outcome. There is a degree of activity that is consistent with the healthful development of the whole body, and we are confident that the best results are to be derived from it for individual and social improvement.

GERM-ANE.

WE are living in an ocean of infectious germs. So the microscopists tell us. With the recent improvement in lenses and methods of examination, a world of minute life has been revealed that should be most startling to every one who reads about the spores, bacteria, bacilli, micrococci, etc., etc., that render whatever we eat or drink tremulous with parasitic life. The atmosphere teems with an infinite detail of germs, each one ready to pounce upon our soft tissues for a contribution to its greedy maw. Every breath takes in a countless host of these creatures to riot on our delicate "innards." What fastidious appetites the brutes must have! for some show a special preference for dainty protoplasmic bits of liver, or kidney, or heart; while others make imperative demands upon the choicest of our neurilemma, or are found at table in the most retired chambers of the brain. What are we to do about it? Must all our fair dreams of development, progress, civilization, be regarded as arrant delusions; and must all our hopes of health and longevity go down before the advancing hosts of invisible imps that Koch and Pasteur, Cru-

delli and Schmidt and Grassi tell us are only the vanguard of zymosis and contagion?

One tells us that we must beware of flies; even that familiar little impertinent that has buzzed in our homes for centuries, and made himself welcome to everything nice on our dining-table, is teeming with creatures whose names are witnesses to their terrible characters—as the *tricocephalus dispar*, *oxyuris vermicularis*, *tænia solum*, *oidiumlactis*, and so on. Even our books and newspapers, freshly drawn from the vender's shelves, and apparently pure and bright, are loaded with infectious little scamps. A German, who squints through high-angled objectives, points a new moral to the old apostolic warning of evil in many, by assuring us that the loose change we may jingle in our pockets is coated with animal life, very dangerous to health; and then, O oyster and clam eater, know that in the tissues of your favorite bivalve lurk those relentless foes of family peace, scarlatina, diphtheria, and other frightful things whose habitat is the human fauces!

We tremble as we contemplate the situation. What are we going to do about it? Oh, let the manufactures of disinfectants be multiplied; let the disease-breeding atmosphere be made redolent with sulphur fumes, carbolic acid, chloride of lead, zinc, copperas! and let everything that is germicidal be thickly spread over our food and drink! Hurry, hurry, ye chemists, with your potent mixtures and relieve us from being the unwilling habitations of lively bacteria and bacilli, of *tænia* and *ascaride*, who are sworn against our mortal comfort and physical integrity!

THE LONDON HEALTH EXHIBITION.

THERE is now open to the public in London an exhibition that illustrates the remarkable advancement of modern civilization in a most striking manner. We refer to the International Health Exposition. The object of this most worthy undertaking is to show what has been done by hygienists and sanitarians for the promotion of health and for the prevention and cure of disease. In one department the food resources of the world are displayed, together with specimens of prepared foods and methods of cooking. In another department the dress of the principal nations of the earth is arrayed, and its relation to health shown in a striking manner. In other departments the relations of residence, occupation, furniture, social custom, and even of amusement to health are illustrated, and practical suggestions are furnished which the visitor may profit by, if he or she will, for the improvement of home hygiene. There are models of dwellings, school-houses, public buildings, etc., and a great variety of other instructive material. In fine, the sanitary science of Europe has been at great pains to accumulate under one large roof the most precious results of study and observation.

The United States have contributed very little to this exhibition. This may be the reason for the silence of our press in regard to it. Strangely enough, we have not seen a dozen lines of allusion to it in all our medical exchanges taken together. An effort of so laudable a nature certainly should receive the hearty encouragement of every man who desires the welfare of society. We shall have occasion to speak of it again.

A GOOD EXAMPLE.

WE clip the following from an exchange. It appeared long since in the *Tribune* of South Bend, Ind.:

LIQUOR DEALERS!

I hereby give notice that I will prosecute to the fullest extent of the law, and regardless of cost, any liquor dealer or person who will give or sell liquor to students, or in any way assist in procuring it for them.

T. E. WALSH, C. S. C.,
Pres. Notre Dame University.

Notre Dame University is a Roman Catholic institution of high reputation. With such a moral force as Mr. Walsh at its head it is worthy the respect of all who regard propriety of life and refinement. We are gladdened by such an announcement; it has the clear grit that must commend it to every rum-hater.

There are sundry Protestant institutions in the land organized for the intellectual and moral culture of young men—so their circulars tell us. They count ten to one of the Roman Catholic seminaries or colleges. Their presidents generally claim to be very solicitous for the moral welfare of the students who are enrolled on their catalogues, but we never knew of one of them to come out publicly like this Notre Dame president, in positive defence of his students. We trust that Mr. Walsh's admirable example will challenge emulation.

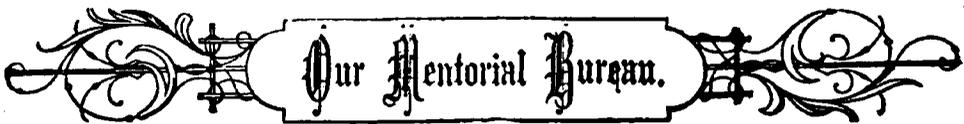
IN EGYPT.

THE recriminative discussion of the Egyptian problem in Parliament and by the British press indicates an uncertain comprehension of the policy of the Gladstone Government with reference to

the settlement of the Soudan troubles. Perhaps the Government itself is in a strait, and if we have an idea of the situation, we can not wonder that it is puzzling. Gladstone probably wishes to avoid the responsibility of assuming active hostilities for the suppression of the rebellion, and justly so, if Egypt is to preserve the small remnant of a claim to separate autonomy that may be hers since the siege of Alexandria. View the matter as one will, the position is an intricate one, and if a continuance of the Gladstone ministry is dependent upon its resolution in such a manner as not to sully the international honor of England,

or to disturb Lombard Street, we must regard the present Premier as having a feeble hold upon the official portfolio.

But alas! poor Egypt, the prey of Mohammedan luxury and of Christian "enterprise," when will she have a chance to rise from her tax-bound slavery? When will her fellahs be accorded the justice of laboring for themselves, and not for reckless voluptuaries and exacting bondholders? If it is sympathy for a long-oppressed and most unhappy people that restrains Mr. Gladstone from consenting to those active military measures that are demanded by a large party in Parliament, let us hope that his counsel will prevail.



To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE CONTRIBUTIONS unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal matters will be considered by the Editor if this is done.

PUPIL OF THE EYE AND EMOTION.—

P.—The nervous apparatus of the eye is very close-

ly related to emotional disturbances; and this is the reason that the pupil is seen to enlarge or contract in conditions of excitement. Of course the rapidity of the changes is due to the temperament of the person affected. The pupil of the eye is controlled by the nervous filaments proceeding from the fifth pair of nerves, which bear, as anatomists generally know, a special relation to psychic states.

DISINFECTING ROOMS.—M. T. M.—For the purpose of disinfecting a room in which one has been or is sick with a malignant disease, several substances are used; like vinegar, chlorine, charcoal, sulphur, iodine, etc. Chlorine is probably the most effective of these. A mixture of the powdered peroxide of manganese and common salt, and sulphuric acid, diluted with water placed in a porcelain basin, and that set in a pipkin of hot sand, will fumigate a room pretty thoroughly. When this composition has been set in the room, the doors and windows should be closed, and the mixture left to operate for ten or twelve hours. Some forms of chlorine are manufactured expressly for the purpose of disinfection, and are very convenient for the purpose. You can get at the druggists Burnett's fluid, Platt's chlorides, Condy's fluid, the United States Army disinfectant. These are all good.

DESCRIBING CHARACTER.—A. X.—A better way to obtain what you wish, is to write to the office of Fowler & Wells Co. for their examination circular; that describes fully how examinations are made by correspondence.

OLD OBJECTION. — W. K.—By reference to phrenological publications of thirty or forty years ago, you will find the objection which you mention fully answered. Your "medical friend," if conversant with Phrenology, even in a moderate degree, would not offer such an objection. Every scientific phrenologist is thoroughly acquainted with the tables of the skull, and knows how to examine the tissues and derive correct inferences with reference to the relations of the inclosed brain.

LANGUAGE SMALL ; GREAT TALKER.—Z. Z.—Are you sure that your reading of the organ is correct? A man may appear to have small Language when the head is first observed in front, whereas a side or profile view of his face would give a totally different impression. A person with a very active temperament, quick perceptions, and a good deal of social sentiment may have the organ of Language in but a moderate degree and yet be very glib-tongued; such people, however, are not known for much variety in the use of words. They are given in a great degree to common phrases and catch-words; repeat their ideas in the same form over and over again, and are tiresome talkers.

FRUIT AND SPEECH.—C. K.—Yes; it is claimed by some that certain articles of fruit exert special influences upon the organ of Language. This may be so; we have no authentic data on the subject. Extracts of fruit, especially the fermented, you know, have a stimulating effect on the brain; and one of the manifestations of such stimulation is an abnormal activity in the way of talk.

MILES UNDER THE SEA.—H. B. M.—We have seen notes relating to the investigations made, according to report, in deep-sea life, but we are not ready to accept them. What truth there is in them, will doubtless appear in regular form from official sources.

BIG HEADS AND LITTLE WIT.—*Question*: Why are some heads, being very large, so void of understanding? or, in other words, why do such heads appear to be thick-headed? How can a phrenologist tell the same by examination?

G. P. M.

Answer: If you will read a good work on Phrenology, the mystery in this respect will be cleared away. A head of cabbage may be as large as a pumpkin, but the substance of cabbage differs very much from that of the pumpkin. So one human head may be as large as another, but differ almost as much in texture, quality, fibre, as a cabbage does from a pumpkin. Some heads appear to be large because their owner has a thick, sappy skin, and abundance of hair; you will find as a general rule that thin-haired, fine-skinned people have relatively large heads.

HOW MUCH TO EAT.—I.—It is utterly impossible to prescribe the quantity of food appropriate to a person; he must ascertain that for himself. This is not very difficult; for if one eat lightly, say at breakfast, and note the time he can go without feeling a want of more food, he will after a few experiments ascertain the amount of food requisite for a day. Let one take some bread and milk or porridge or what not, a moderate quantity, at breakfast, and it will serve him probably for three or four hours. Of course the time during which he will feel no special desire for refreshing the stomach, will be dependent upon the work in which he is engaged, a given amount of food going further in manual exertion than in brain work. When it is ascertained how much is suitable, care should be taken not to eat more than that. It is better to reduce the quantity than to add to it; it is better to leave the table with a sense of want than with the sense of repletion. Rest is as essential to the stomach and other organs of digestion and assimilation as it is to the limbs. Overwork of the stomach induces dyspepsia, whereas an insufficient amount for the needs of the body will not tell very soon upon the constitution; that is to say, if one eat his daily meals regularly, but doesn't eat quite enough at a time, nature will more readily adapt herself to the shortened allowance than she can to a trifling excess of the proper regimen.

WESTERN GREATNESS EAST.—S. S. L.—We are of opinion that the Cincinnati *Ledger* rather stretches the point. To be sure, within a few years past, several Western journalists have ventured to try their pens in Eastern longitudes, but very few have shown exceptional literary powers. The names you mention are for the most part of little standing in a literary sense here; and you have made two or three mistakes: one in ascribing Charles Dana to the West. Mr. Dana has been known in the walks of literature here almost from boyhood; he is of New England origin. You might, with more justice, have credited England and Ireland with prominence in American literature: because we might name some distinguished writers who have crossed the ocean, and obtained general recognition among us for their talents.

A RELIGIOUS IDEA.—*Question*: What is the mental make-up of persons who, speaking from a religious point of view, think that when they are once "in grace" they are always "in grace"?

Answer: We should regard the mental make-up of such persons as not remarkably elevated or broad in development. There is certainly a lack of logical density in such an opinion. It is possible that a person entertaining such a view may have large Veneration, and Hope, and Self-esteem; but the organ of Conscientiousness can scarcely be deemed a prominent element; and as for the intellect, its reasoning function must be

wanting in activity. Such persons belong to the order of "cranks."

"MASHER."—*Question:* What is the meaning of this word, "slang," or whatever it may be?

Answer: A London writer says, "The 'masher' is a fungus, not an honest mushroom, or even a respectable toadstool, but a wet, spongy, and unwholesome emanation from a rotten and poisonous soil, ridiculously over-dressed, starched up to the very eyelids, smothered like a girl in jewelry, decked out with flowers like a footman, idiotic in countenance, sparse in conversation, with a knobbed stick to suck; he has become an observed form of social cold veal." We hope this is sufficiently definite, although we might add, for the sake of the further information of our querist, that a "masher" is a young gentleman who boasts of his remarkable powers of fascination over the ladies.

THE OPTIC NERVE.—The precise relations of the Optic Nerve are not known. Opinions differ; it has roots in the optic thalami, but is traced farther back and upward, and according to some physiologists, has its final terminations in the angular gyrus. In that convolution are supposed to be the nervous cells that stimulate its action.

INDICATIONS OF EARS.—From time to time articles have been published describing the characteristics that are supposed to relate to the ears. A few years ago a very elaborate article of the kind was published, and occasionally in this department, special inquiries are answered. The subject is considered in the work on Physiognomy. As a general rule the formation of the ear is indicative of quality. Those who have symmetrical, smooth, medium large ears, are thought to have more refinement than those who have coarse, irregular, bony-like ears.

A strong physical organization, the Motive temperament being predominant, is usually associated with a hard, gristly ear, there being very little softness about it. Then the ear may be a little too flabby and soft; we find it in persons having the Lymphatic temperament, or the Vital in excess.

WHOLE-WHEAT MEAL FOR FOOD.—There is a great deal of discussion on this subject, and a great deal of untruth and silly statement is current. The history of ancient peoples, the food habits of the Oriental peoples to-day, and of many barbarian and savage tribes, go to show that food that is made of whole grain, be it wheat, oats, barley, corn, is conducive to health and vigor. If you would read works on diet, you would find very interesting statements on this subject. In some countries the people are vegetarians exclusively. It is true that one's stomach may be broken down by improper dietetic habits, and so rendered specially sensitive to articles of an irritating nature. Some,

for instance, can not eat bread made of Graham flour, that is the ordinary Graham flour, because of the coarse bran and woody matter in it, and yet such people will get along very comfortably on bread that was made from evenly ground meal, containing the whole grain. By improved methods, some millers convert the whole grain into a fine homogeneous meal, there being no large flakes of bran or woody matter in it. There are some people among us who live almost entirely on cereal food, vegetables, and fruit, and profess better health than they previously had, when they lived in the common fashion. The Shakers, for instance, so live.

PREPARATION OF INSECTS FOR CABINETS.—Will not some entomological reader furnish a correspondent with a good method for the preparation of insects for cabinet preparation? We are not conversant with entomology sufficiently for that purpose. We know that some use sulphuric ether, and some alcohol or chloroform, and it is quite likely that different insects need different procedures.

TO MANY CORRESPONDENTS.—We are in receipt of so many questions for this department that it is utterly impossible for us to give them all early attention, and we would point the reader to the regulations set forth at the head of the department. Within the space of a week we received eight postal-cards from one correspondent, containing in all about twenty questions; there are others who are pleased to deluge us in a similar manner. As we usually have space for but ten or twelve Answers a month, and we endeavor to take them in order, it can be seen in what a state of embarrassment we are placed by such an influx. We hope that the reader who has been waiting for several months for an answer to his inquiries, will accept this statement as a sufficient explanation for the delay.

What They Say.

Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

COMMON-SENSE IN OUR MONEY.—The civilized world must have money, and it must be subject to certain rules, as to size, weight, denomination, and material. Whether it be in coin or paper it must have about it such features as will give it character the world over. The paper may have mere adaptation to home circulation, yet what is specially for home circulation should be as well protected, and have as much character, as that which happens to go abroad. The one mutually supports and dignifies the other.

Our gold coin seems to be all that could be reasonably required, but our silver and paper are not

up to the standard of the good common-sense of the age. The paper-money party may contend for "greenbacks against all coin," but we are not now taking sides for coin or paper; we simply speak of our money as we find it. Our silver coinage is woefully lacking in character and practicability.

In the silver dollar we have two editions, and the one with the more real value, strange to say, is by arbitrary rule declared to have the least value! Much time—and time is money, and in this case represents a great amount of money—has been wasted in futile action to regulate this matter, which it would seem should not have required any time to speak of. We used to think that various things, such as real estate, gold, silver, and precious stones, had some real value, but back of all is the human mind. Much has been said about the "fiat dollar," yet in the affairs of men all things seem to come under this head, as all things, no matter how high or low in value—all things, gold, silver, diamonds, houses, lots, works of art—even the great human mind itself—all these, in order to pass and be accepted by the world as valuable, must, above all earthly things, have the stamp and indorsement of the collective human mind.

On general principles this may be all right, but when it comes to these two silver dollars, how absurd such arbitrary action. That which has the higher worth in itself and the best design is declared to have a less value! Instead of calling in this superior dollar, or bringing the other up to it in standard of value and artistic worth, the powers that be hesitate, and hesitate, and don't know what to do with it. Good practical sense would say, recall the one of inferior value: and if the artistic element could have a voice it would say, call in this regular standard dollar of abominable design and issue something worthy of our genius, our enlightened days, and American talent.

We should have a twenty-cent piece. Such a coin was tried and failed for the simple reason that while it met a practical want it was so formed as to become a nuisance. Let a twenty-cent piece be made, formed in such a manner that there will be no trouble about its being recognized in the dark as well as in the light, and it will be a useful coin. This could be done by making it elliptical, octagonal, or square with rounded corners, or piercing it with a hole, after the manner of Chinese coin. The form is not essential so long as some design of positive character is adopted that would be readily distinguished. It would be a useful coin and might be called a "Shilling"—five shillings to the dollar—and this would do away with the shilling of old, which has different values in different localities.

The present three-cent coin is also a very handy piece of money, but at present it too much resembles the dime. It should also be of some peculiar shape that would make it a strong contrast with the dime.

In regard to "greenbacks," we need more small

denominations, but above all we need the paper better protected. Introducing the silk fibre in the paper was an excellent conception, so is any idea that will protect the individual bill itself. The silk fibre makes the paper difficult to obtain, so counterfeiters resort to the practice of taking bills of small denominations, washing out the print and then printing on them bills of a larger denomination.

In order to prevent this, and the better secure our paper money, in addition to the silk-fibre mark, each bill should be printed on paper containing in "water mark" the denomination of the bill printed thereon. This being done, the paper of all bills would at once detect any fraud in this line. The paper itself would show the denomination of the bill, and would give additional safety to our paper currency and make it impossible for counterfeiters to wash bills of a low denomination for the purpose of printing thereon a higher denomination.

I. P. NOYES.

EFFECTS OF PHRENOLOGY.—A Texas correspondent writes: "I believe that when the truths of the science of Phrenology are thoroughly established in the world, their force will advance man at least one step farther toward a higher and more perfect knowledge of God in nature; and in a limited sense old things will pass away and all things will become new. Old errors and superstitions and vague ideas and theories will vanish like the clouds after a dark and gloomy day. True knowledge will not be more true, but the world will have arrived at a more perfect knowledge of things as they really are. There will be more concert of action, more harmony among families and classes of men in every respect, in governmental and educational affairs, in all industrial pursuits, and in social and religious enjoyments. Each and all will know themselves and each other and what is due to each other, and none will be disposed to trespass upon others' rights. Of the blessings that are in store for the sons of men our ideas are but limited, yet I believe that the highest attainment man is capable of in his earthly life is self-government, and before that can be fully reached he must have a full knowledge of his own being.

"J. R. L."

FOOD REFORM AND LONGEVITY. —

Editor of P. J.—Dear Sir: I am pleased to see an effort made to organize a "Food Reform Association."

This movement must form the basis for a rational longevity; and without entering into a consideration of the ideas usually entertained as to the possible length to which an individual life might extend, I wish to say that there are ample grounds for believing that, if we were in possession of sufficiently definite knowledge, we could so apply it as to ward off *gray hairs* and *wrinkles* at our pleasure.

I infer this from some experiments now being made with aged and infirm people, and also from

the promises of exemption from death as a result of obedience to God's instituted laws as taught in all parts of the Scriptures. I have just read and commented on the sixth chapter of John, in which the promise of "everlasting life," or exemption from a physical death, is five or six times repeated on the condition that those to whom He was then talking would "come unto him," as our translators have put it, but which evidently means that they should come up to the standard of obedience to which He himself had attained. This high standard is the one set up in the "sermon on the mount," in the chapter that I have just read, in the sixth of Romans, and, in fact, all through the *Old and New Testament Scriptures*.

During the last four or five years I have been engaged comparing the various portions of the Scriptures with each other, and I declare most emphatically that man is promised an exemption from a physical death by simply conforming to the simple truths as set forth in the teachings of the Saviour and His apostles. This is also the import of the narrative in the Genesis descriptive of the fall of man. The present method of interpretation of Scripture which obtains with all denominations is not in accordance with the texts employed in the original languages in which the Scriptures were written. This deviation has given us an entire system of sentiment instead of truth, which is an unfortunate legacy from the mediæval age. There is little doubt but the apostasy took place gradually, having been introduced by some of the much lauded "Christian fathers," who attempted to popularize the teachings of the Saviour by mixing His doctrines with the platonic philosophy. The change was at first very gradual, and the immediate effects very slight; but the breach once made grew wider, and ultimately landed the human race in the persecutions which history describes. But the science of geography, the art of printing, and the Reformation have permitted the human mind to again grasp the simple truths adapted to the appreciation of man's cerebro-spinal structure.

Toronto.

ISAIAH RYDER, M.D.

THE WORK OF THE INSTITUTE.—Lecturers have been received from recent students of the Phrenological Institute, in which occur the following allusions to their experience as teachers of mental science.

Mr. L. Carman writes from Dutchess County, N. Y., under date of May 26th :

"I have given several courses of lectures in this county, giving from two to six in each place. The examinations have been from the first very satisfactory, both in public and private, and made some very astonishing hits in many cases. . . . So far I have been able to convince the people that there is a greater amount of truth in Phrenology than the majority are willing to admit, and have made converts in every place. At first my success financially

was not good, but later on made up losses and was fairly compensated. . . . All my spare moments are given to the careful study of the works on Phrenology, etc., and I have all the leading books. After the experience of the past few months I have far more confidence in Phrenology than ever before, and think no study can be more profitable. 'A story of an examination' in the June JOURNAL is worth the price of the JOURNAL to a practical phrenologist, as an illustration of the real value of an examination. Such articles are of great value, and the more I read the JOURNAL the more highly I prize it."

Miss F. A.—, who attended the session of '84, has been working in Nebraska, and thus mentions some of her new experiences :

"All my lecturing has been done in churches, and whenever I spoke have had full houses. The attention was perfect, not one ever left the room. . . . I think while working I have realized about twenty-five dollars per week. I have examined, in all, perhaps three hundred heads since January, though only a few took charts. I like to talk to an audience; have no trouble in holding attention, and have been wonderfully successful in delineating character—better than I ever imagined in my wildest flights of fancy. One gentleman from Lincoln, Neb., who had ten charts from as many different phrenologists, said I gave the clearest, truest, and most minute delineation he ever heard, and he was a very earnest, truthful sort of man, with no flattery or 'nonsense' in his character. . . . I am determined to persevere, and with that intent I am arranging my work for next fall with some forethought and care."

These are very hopeful returns from students who were hitherto untried in the field.

QUICKLY REPAID.—Mr. H. P. D., of Peoria, Ill., says, in a late communication : "The premium-book and 'Chapter on Mouth and Lips,' came to hand to-day, for which accept my thanks. One article in the JOURNAL has paid me for my whole subscription."

PERSONAL.

QUEEN VICTORIA is the titular head of the Church of England, but she has written a letter to the General Assembly of Scotland inclosing a gift of \$10,000. Some people call this piece of liberality heresy.

A **LEARNED Hindoo** lady named Pundita Romabai, a widow hardly twenty-five, renowned for her knowledge of Sanscrit, who has consecrated her existence to the work of promoting female education in India, has been lecturing in Bombay.

DR. DANIEL BRODIE, of Edinburgh, Scotland, is now visiting the United States for scientific and

social purposes. He announces a new translation of Dr. Gall's works, that will be more accurate and complete than the old edition. Dr. Brodie is a specialist in idiocy and feeble minds.

SIR JOHN MACDONALD is said to be pressing a scheme for a railway from Winnipeg to Hudson Bay, which will shorten the route of Western grain to Liverpool by a thousand miles. Our American Trunk line managers should look to the true interests of their railways, and do less stock-jobbing and quarrelling.

PRESIDENT BASCOM, of the State University of Wisconsin, is in bad odor with the regents of that institution, for having worked to prevent the sale of intoxicating liquors to students, and interesting himself in the temperance cause generally. We shall accord him a place of honor alongside the president of Notre Dame University. Who next?

THE PHRENOLOGICAL SOCIETY of Springfield, Ohio, is prospering, and, since the new features of socials at the houses of the different members, and of lectures delivered occasionally by the best-informed students of the science, have been introduced, the organization has improved, and now numbers on its roll persons of high intellectual ability as well as good social position. Mr. Geo. Netts, member of the city Board of Education, is now President, and Mrs. Prof. J. U. Van Sickle, Secretary. This Society is now in its sixth year.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

THE most corrective punishment is kindness.

It makes a great difference whether glasses are used over or under the nose.

A HAPPY jest often gives birth to another; but the child is seldom worth the mother.

THE rays of happiness, like those of light, are colorless when unbroken.—*Longfellow.*

NECESSITY is cruel, but it is the only test of inward strength. Every fool may live according to his likings.

WE have nothing to enjoy till we have something to impart. He only lives who is not a reservoir, but a fountain.

THE great, all-important subject of consideration for you and me and every human being is how to save "the life that now is." That saved, all is saved; that lost, the loss is irreparable.

THE sign that a man is a gentleman is his consideration for those who are not; the sign that a man is educated, is the largeness of his sympathy;

the sign that a man is truly refined, is not that there is a Desert of Sahara in his soul, but that he blossoms like a prairie.

DANIEL WEBSTER on one occasion presented, with a brief epistle, a valuable book to a literary society at Harvard. The note, so carelessly elegant and graceful, elicited many compliments. It was discovered, however, when the book was examined, that the donor had thoughtlessly left between its pages a paper on which half a dozen different forms of the same note were written.

I WATCHED the glorious sun go down,
In splendor 'neath the distant wave,
While far above a golden crown
Hung radiant o'er his ocean grave.
I could not mourn that grand farewell.
O'er sea and sky a voice then rang,
A voice that charmed me like a holy spell,
And in my ear triumphant sang
Resurgam!

MIRTH.

"A little nonsense now and then
Is relished by the wisest men."

WHAT fish is most valued by a loving wife?
Her-ring.

A MAN advertises for "competent persons to undertake the sale of a new medicine," and adds that "it will be profitable for the *undertaker*."

"MAMMA, is papa a bull or a bear?"

"He's a f— O dear, Willie, don't ask so many questions! Go and ride your velocipede!"

"Well, I just wanted to know whether I was a cub or a calf, 'cause"—

A COLPORTEUR was once conversing with a man on the religious duties. Said he—"Do you attend church regularly?" "Oh, no; I never go to church, but I allers make it a p'int to 'tend all the funerals. They be jest as solemn, and there hisn't no kerlections."

It was rather annoying, to say the least, when the new clerk of a Boston merchant, who had just been initiated into the mysteries of the trademark, inquired in a loud voice as a customer demurred to the price, "What shall I sell this for? It is marked four dollars and a half, and cost fifty cents."

"THINGS is getting slouch ways in dis country, I declar' to grashus ef dey ain't," said an old negro the other day. "First come the cattypiller, den de chicken koliery, an' now here cum de grass-hoppers, an' I hear talk the udder day dat a nigger was pisened with a mushmillion. Looks like hard times."

A MAN coming home one night rather late, a little more than "half seas over," feeling thirsty, procured a glass of water and drank it. In doing so

he swallowed a small ball of silk that lay in the bottom of the tumbler, the end of the thread catching in his teeth. Feeling something in his mouth, and not knowing what it was, he began to pull at the end, and, the little ball unwinding, he soon had several yards of thread in his hand, and still no end, apparently. Terrified, he shouted, at the top of his voice, "Wife! wife! I say, wife, come here! I am all unravelling."

First Dude—"Isn't the Amewican flag vulgah?"

Second Dude—"Aw, yes, awful; wed, white, and blue; such common colohs, y' know."

First Dude—"Let's twy to get Congress to change it."

Second Dude—"Good idea! The colohs should be burnt cweam, crushed stwaberry, and mauve brown."—*Phil. Press.*



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

SEXUAL NEURASTHENIA (Nervous Exhaustion): Its Hygiene, Causes, Symptoms, and Treatment—with a chapter on Diet for the Nervous. By George M. Beard, A.M., M.D. Edited by A. D. Rockwell, A.M., M.D. 12mo, pp. 270. Price, \$2. New York: E. B. Treat.

The sudden death of Dr. Beard was a loss to progressive medicine. Indefatigable, zealous, independent, he had pushed his inquiries into realms that had hitherto been deemed by the rank and file of practitioners clouded with vague speculations and tentative experiment. He was a man of broad observation, liberal in attention to the new that promised to be useful, yet keenly critical and comprehensive in judgment. His literary tastes led him to excessive effort, and wrecked a constitution not specially strong, aside from its nervous intensity, before the fullest maturity of his intellect had been reached. In the discussion of neurological topics he was a leader, and probably contributed more than any other man connected with the practice of medicine in America to the disclosure of the causes of nervous debility and to the analysis of its different phases.

At his death, the work, whose title is given above, was unpublished, and its high value led his friend and colleague, Dr. Rockwell, to arrange it for the press. The physician will find it a thoroughly practical treatise on the subject, and comprehen-

sive in its detail of causes, symptoms, physiology, and treatment. It points a moral with regard to the extensive prevalence of "nervousness" among American people of the better class that should make the lay reader blush with shame; while ignorance of duty and propriety in sexual matters may be urged as an excuse for enfeebled organisms. But with the rapid increase of books of a special sort adapted to popular instruction, this excuse is becoming a mere plea for the indulgence of a brutal propensity.

There is "no specific, or any approach to a specific, for sexual neurasthenia"; but the physician must exercise his experienced judgment in the treatment of a case. The stomach has become weakened, the patient is a chronic dyspeptic, and must be strengthened and built up in a rational manner if he is to be helped or cured at all. Some excellent suggestions are given on the diet suitable to such cases, and details of treatment by electricity, with which, as a specialist, Dr. Beard was thoroughly conversant.

THE DIET QUESTION. GIVING THE REASON WHY. By Susanna W. Dodds, M.D., is a pamphlet of a hundred pages or so, containing a very comprehensive view of the essentials of diet, with a special bearing upon vegetarianism. Taken in all there is no modern publication which so directly and definitely shows the logic and philosophy of vegetarianism. The reader may say that "it is a special plea." Yes, but a plea based upon human law, with the best of evidence at its basis. The history of man is appealed to. The organization of the stomach, of the bones, of the teeth, the proximate principles that enter into the substance of the human tissues are described, and the facts of custom among different nations are passed in review. He who reads with discrimination must admit that the author had made out a good case. Those who wish to look into the merits of the diet question will find this a very satisfactory treatise.

FIRST LESSONS IN PHYSIOLOGY AND HYGIENE; with its relations to alcohol, tobacco, and other narcotics. By Charles K. Mills, A.M., M.D., Fellow of the College of Physicians of Philadelphia, etc. 12mo, pp. 238. Eldredge & Brother, Publishers, Philadelphia.

The multiplication of text-books on Physiology and Hygiene for the use of schools is marked at this day, and recently legislation in some of the States for the introduction of hygienic studies in the common schools has stimulated their publication. This book is a concise presentation in simple form of the most important facts in physiology and hygiene; it is well adapted to the use of young pupils. Far better is it to instruct our children in the principles of physiology, than to drive them through a long and weary course of high arithmetic, algebra, and other studies, that are by no means necessary in their future life, and for the most part are in a few years forgotten, and therefore not even made orna-

mental. The author includes a valuable chapter on alcohol, tobacco, and other narcotics that closely accords with the results of scientific research.

WIT, WISDOM, AND PHILOSOPHY OF JEAN Paul Richter. Edited by Giles P. Hawley. No. 117 of Standard Library. Price, 25 cents. Published by Funk & Wagnalls, New York.

How few read this modern "Classic"! and fewer still understand the full strength and sweetness of the master of moral thought who lived within our century. Long ago Richter was enthroned among the "immortals," but with the exception of an occasional quotation met here and there, American readers are comparatively unacquainted with his pungent and profound writings. It has been well said of him, "No writer has made such brilliant remarks and no ten have made so many." Some of the ablest thinkers of the century have been eager to confess their debt to him for inspiration, rich suggestiveness, and subtle analysis. This volume of selections has been made with excellent taste and discrimination, and displays to advantage the range of Richter's thought and imagination. Mr. Hawley has done the reading public a valuable service in gleaning from the great, if erratic German, so many gems, and thus putting them in possession of much that is the best material of his many volumes.

THE HAUNTED ISLAND. By Margaret E. Wilmer, author of "The Glass Cable," "The Prince of Good Fellows," etc. 16mo, pp. 369. Cloth, price \$1.25. New York: National Temperance Society and Publication House.

Another healthful story for young people by a lady who knows how to write in an interesting manner. The hero is an exemplary young man whose mother, a Quaker, died in his early childhood, of neglect and a broken heart, while his father was an early victim of intemperance. Carefully and conscientiously brought up by his Quaker grandparents, this young man became an effectual helper and teacher of others by the force of his singularly upright, manly, Christian example. The lesson of total abstinence, and the importance of avoiding hurtful associations, is most impressively taught. The book merits a place in every Sunday-school library and at every fireside.

MILLERTON PEOPLE. By Faye Huntington, author of "Ripley Parsonage," etc. 16mo, pp. 313. Price, \$1. Published by the National Temperance Society, New York.

A good illustrative story of how temperance work is done in some communities, and who do the most of it. In this case the leading character is a young girl. How much true reform is brought about by our earnest, clear-seeing, vice-hating girls—bless them!—who quietly, courageously sustain a cause in the home circle. The scenes and incidents are simple and lifelike; there is no straining for effects, or extravagances—yet the interest of the young reader is kept to the end. It is an excellent book for boys—far better than the stories of

hunting and rambling in foreign lands and adventure-seeking that are now so thickly circulated by reputable publishing houses, and that set the brains of their callow readers on fire with excitement.

PREPARATION. A Novel. By Mary L. Hall. 12mo, pp. 284. Cloth, price \$1.50. New York: J. S. Ogilvie & Co.

A story of life by a new writer—but there are many "new writers" coming to the front nowadays—who writes a preface to the book, which prologue-like gives us a glimpse of her object. A brief quotation from this preface must suffice our reader—let him procure the book if he would see how well Miss Hall has carried out her plan. "To note a similarity to our own lives in those about us is often a comfort. To point out in another's life those things which were sent as **PREPARATION** may cause some one to recognize in his own the Hand that is guiding him, and to mark the circumstances that are being brought to bear upon him for the purpose of ensuring his happiness in eternity, as well as his greatest good, and eventually his greatest happiness here. My book is a failure if it performs no service of this kind for anybody, and a success if it proves to one soul the window whereby the light from God may penetrate the darkness, and teach it to trust the One who knoweth the end from the beginning, and doeth all things well." It is, in fact, a fair average novel, with a better moral purpose than the majority of novels.

PUBLICATIONS RECEIVED.

THE PHRENOLOGICAL MAGAZINE of London, for June, is an exceptionally good number; most of the articles being careful analyses of mental phases. This monthly is worthy an extensive circulation, and we hope it is rapidly growing in favor with the English public. Published by L. N. Fowler, Imperial Buildings, London.

THE POPULAR SCIENCE MONTHLY, for July, discusses "The Great Political Superstition," or the divine right of the majority; through the pen of Herbert Spencer. "The New Theology," "Our Dead Insects," "Are Science and Art Antagonistic?" "The Prevention of Hydrophobia," "The Morality of Happiness," "Adaptation to Crime," etc., etc.

PROCEEDINGS OF THE SOCIETY FOR PSYCHICAL RESEARCH, of London. In the Number for April, which is before us, there are eight papers covering as many departments of observation which come within the purview of the London Association. The first is a report of the Committee on Thought-Transference, or what is otherwise known as Mind-Reading. Next follows the report by the Committee on Mesmerism; next an account of some experiments in Thought-Transference, in which the subject was willed to draw certain diagrams de-

signed by the agent. There is also an interesting article on the Divining Rod, and a report on certain experiments made to test the alleged power of the Divining Rod. Messrs. Trubner & Company are to be credited for the exchange.

AMERICAN JOURNAL OF INSANITY, for April, covers several important topics, of which the following are specially deserving mention: "On Progressive Meningo-Cerebritis of the Insane," "The Relation of Madness to Crime"; "The Criminal Responsibility of the Insane"; all are carefully prepared articles by specialists.

RECENT WONDERS IN ELECTRICITY, Electric Lighting, Magnetism, Telegraphy, Telephony, etc., including articles by Dr. Siemen, F.R.S., Count du Moncel and Prof. Thomson. Edited by Henry Greer. Illustrated. 8vo, pp. 168. Price, \$2. An excellent epitome of the recent progress of the wonderful agent that constitutes its subject, and the best work of its kind.

HONORABLE. We are informed in connection with the publication of the Schaff-Herzog "Encyclopædia of Religious Knowledge" (Funk & Wagnalls), that the German contributors to the original Herzog are to be paid for all articles written by them that have been incorporated in the Schaff-Herzog. More, indeed, is paid for the use of these articles in this American edition than was paid for their use in the German work. It may not be amiss to add that Dr. Schaff, before beginning the work, secured the written consent of the editors and publishers of the Herzog.

SIXTH ANNUAL REPORT of the Bureau of Statistics of Labor and Industries of New Jersey, for the year ending October 31, 1883. We are indebted to Mr. James Bishop, chief of the Bureau, for this bulky volume. It certainly is a large showing in relation to the industrial enterprises of the State it represents. Although great railway corporations and other monopolistic undertakings exercise a paramount control in the legislative affairs of our neighbor State, yet the enterprise of her people is by no means kept down. All sorts of mills and factories and pursuits, from silk-weaving to pottery and glass, seem to be prosperous there. Some of the best specimens of ceramic production in our markets come from the art-potters of New Jersey. The picture, however, has a side of shame that is considered in the statistics of pauperism, which are given with apparent candor, but evidently the State of New Jersey is not behind her neighbors in the endeavor to suppress the disgrace of mendicancy and indigency.

VICK'S ILLUSTRATED MONTHLY MAGAZINE comes to us fresh with the breath of summer; its illustrations suggest the opening flowers and the pleasant odors of the garden. It is a very useful periodical for the gardener and flower-lover.

HIGH LICENSE; or, the Monopoly of Abomination, a sermon by T. De Witt Talmage, D.D.; and The Delusion of High License, an address by Herrick Johnson, D.D. Price, 10 cts. J. N. Stearns, publishing agent, New York.

READINGS AND RECITATIONS, No. 5. A new and choice collection of articles in prose and verse, by the foremost temperance advocates and writers; suitable for use in the schools, temperance organizations, reform clubs, and also adapted for public and private readings. Edited by Miss L. Penney, editor of the "National Temperance Orator," etc. This is a new selection of readings, many having been prepared especially for the book. 120 pages. Price, in paper, 25 cents; cloth, 60 cents. Published by the National Temperance Society, New York.

BRIEF NOTES FOR TEMPERANCE TEACHERS. By Benjamin Ward Richardson, M.D., F.R.S., author of "The Temperance Lesson-Book," "Ten Lectures on Alcohol," etc. 8vo, pages 127. Price, in cloth, 50 cents.

A recent publication by the National Temperance Society, New York, prepared by that foremost of English physicians, with the view to afford special assistance to teachers, on the scientific bearings of the alcohol question. It has a summary of points of particular value to those who are compelled to defend their position against so-called scientific objection and bickering. It contains the bones and marrow of large volumes.

ARCHIBALD MALMAISON. By Julian Hawthorne. 12mo, pp. 126. Price, in paper, 15 cents. Published by Messrs. Funk & Wagnalls, New York. A thrilling and sensational story which some regard as excellent work in the writing way. It strikes us as an attempt on the part of this young man to emulate the unique talent of his father in working up weird and mysterious situations, peculiar and difficult plots. It is a story of an aristocratic life in England, and as titles and high living please the masses, perhaps this book will find many readers who think that through its pages they can gaze with open mouth at the doings of a far-removed aristocracy.

NO. VII. OF OGILVIE'S POPULAR READING. Price, 30 cents. Contains eight stories. The Blunders of a Bashful Man, by the author of "A Bad Boy's Diary"; On her Wedding Morn, by Bertha M. Clay, author of "Dora Thorne"; Borrowed Plumes, by Miss Jennie S. Alcott; Dolf's Big Brother, by Mary Cecil Hay; Love Letters of Celebrated People; History of Beautiful Women; Conquered by Love, by Mary Dwinell Chellis; Jerusha Rugg in Search of a Husband. J. S. Ogilvie & Co., Publishers, New York.

THE TERMINATION OF THE NERVES IN THE KIDNEY. By M. H. Holbrook, M.D. Reprinted from the proceedings of the American Society of Microscopists at the Chicago meeting of 1883.

PERFECTLY
PURE

PEARS' SOAP

IT IS THE BEST IN THE GREAT EAST

ITS DURABILITY IS REMARKABLE



THE FAMOUS ENGLISH COMPLEXION SOAP

SEE ^{what} *Mary Anderson* WRITES

London,
Dec. 24, 1883.

"I have used your Soap for two years with the greatest satisfaction, for I find it the very best."
"TO MESSRS. PEARS."

MARY ANDERSON.

— NOTHING ADDS SO MUCH TO PERSONAL APPEARANCE —
As a Bright, Clear Complexion and a Soft Skin. With these the plainest features become attractive. Without them the handsomest are but coldly impressive.
Many a complexion is marred by impure Alkaline and Colored Toilet Soap.

PEARS' SOAP

A SPECIALTY for the SKIN & COMPLEXION.

Is recommended by the greatest English authority on the Skin.

Prof. SIR ERASMUS WILSON, F. R. S.
Pres. of the Royal Col. of Surgeons, England.

For Sale throughout the Civilized World.
15 INTERNATIONAL AWARDS.

MADE IN ENGLAND



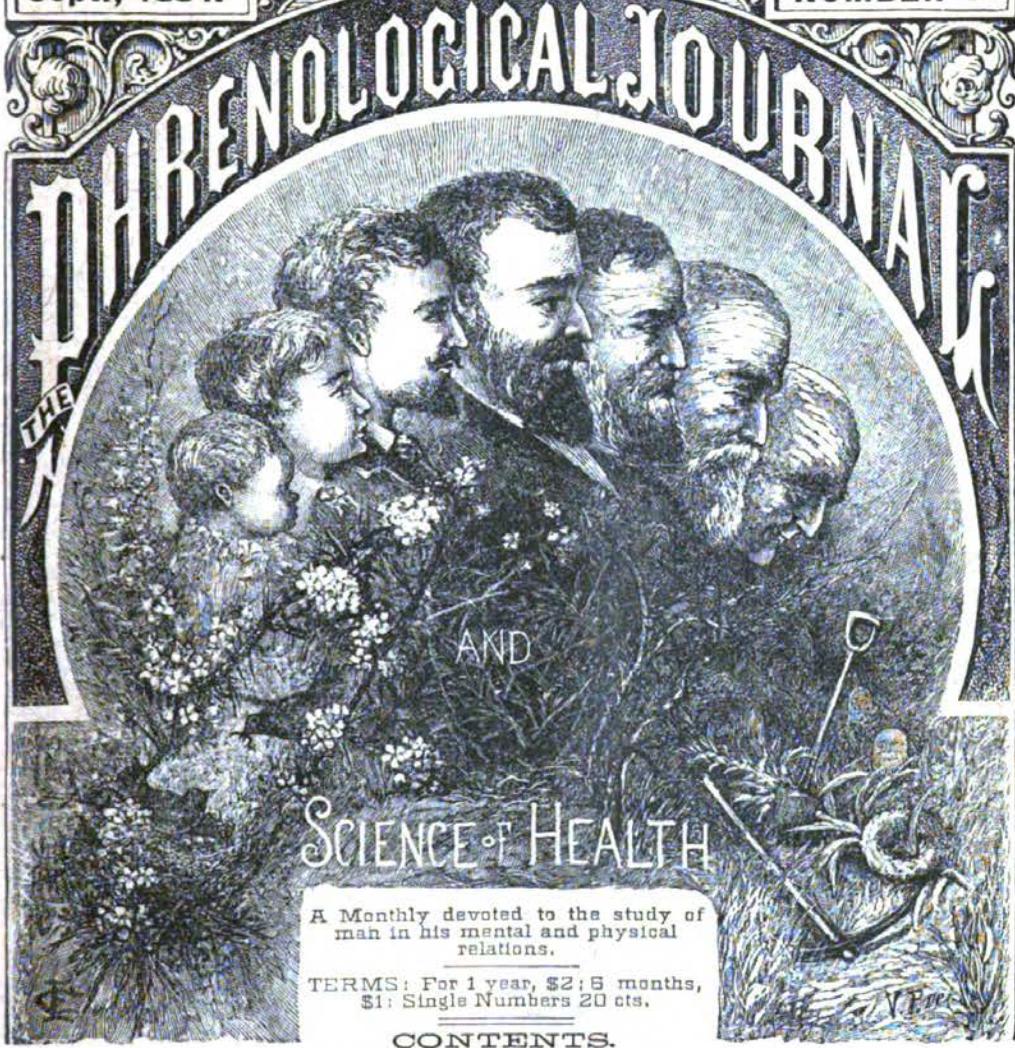
IMPROVES THE COMPLEXION

KEEPS THE PORES OPEN - KEEPS THE SKIN SOFT

Old Series, Vol. 79
Sept., 1884.

KNOW THYSELF

New Series, Vol. 30
NUMBER 3.



A Monthly devoted to the study of
man in his mental and physical
relations.

TERMS: For 1 year, \$2; 6 months,
\$1; Single Numbers 20 cts.

CONTENTS.

I. Allan Pinkerton, the Detective. Portrait, 121

II. True Religious Education, 125

III. Organic Cerebration, IV.; SELF-ESTEEM, FIRMNESS, AND CONTINUITY. Illustrated, 127

IV. Craural Affinities of Men and APES. Illustrated, 130

V. LANGUAGE, VI.; RISE AND PROGRESS OF THE ENGLISH TONGUE, 138

VI. Blarney Castle and the Blarney-STONE. Illustrated, 145

VII. Robin and the Phrenologist, 147

VIII. The Founder of the Schwenk-FELDERS. Portrait, 149

IX. Hints on Child-Training, III., 151

X. Delia and Blanche, 154

XI. The Mind Cure, 159

Notes in Science and Agriculture.—
Position in Sleep and Dreams; Fall of Meteoric Matter to the Earth; Suicides and Murders in Italy; Mites in the Henney; Preservation of Ancient Art; Houses in the Health Exhibition; A Man without a Face; Singular Conduct of Glass Tubes; Progress of Agriculture; Why Photographic Portraits are rarely good Likenesses, etc., etc., 168

Poetry.—My Portion; Our Angel Boy; etc.

Editorial Items.—Antecedents of Phrenology; Some Medicated Springs; The Negro South, 173

Answers to Correspondents.—Actors and Acting; Capital Punishment and Philosophy; A Cause of Cholera; Measurement of Vitality; Gambetta's Head; Heredity through Milk. WHAT THEY SAY.—Longfellow and Tennyson; The Intellect in Religion; The Two Lectures; "Our Best Words," etc., 177

Personal.—Wisdom.—Mirth.—Library.

ENTERED AT THE POST-OFFICE AT NEW YORK AS SECOND-CLASS MATTER.
FOWLER & WELLS CO., Publishers, 763 Broadway, New York.
 L. N. FOWLER, *Imperial Buildings, London, England.*

as a stranger, and modestly asked for a delineation of character. Mr. Sizer having described him in general, said to him, that "he had a wonderful sagacity in the study of character, that he would understand strangers at sight, and know men like a book at the first interview; that he would know whom to trust and distrust at a glance, and would carry the figure and features of a man like a photograph in his memory." He burst out laughing, and turned to the examiner and said: "That will do. Last week I attended a lecture by Mr. L. N. Fowler, in our city, Chicago, and some of my friends quietly took me to the platform, to be examined in public; and Mr. Fowler said: 'This man would make a capital detective; he would smell a rogue three miles.' I am known in Chicago as a detective, and it was considered a great hit, and I thought I would just step into the New York office and see what you would tell me here. I am satisfied."

We have never seen the man since, although his name from that day has been widely familiar with the public here, and the realm of rascals has had good reason to fear him. His lamented death on the first of July, thus sadly brings him before the public. We wish to call attention to a few of his prominent qualities. In the first place, he looks strong, enduring, healthy. That well-set nose, those firm and strong lips, and massive cheek-bones, indicate power, constitutional vigor, great physical self-reliance. We fancy there is a special steadiness to that eye, as if he could see everything and not seem to see it; we fancy that in the whole face there is a great deal of self-control, self-command, a quiet, steadfast reticence, as if his purposes were unreadable by others. That immense fullness across the brow indicates great perceptive ability; to see, and scan, and criticise, all the conditions and surrounding incidents. Nothing escaped his attention, and he might have been a capital scholar in all scientific knowledge, such as practical mathematics, chemistry, natural history, and natural philosophy.

We notice Order in the fullness and squareness of the external angle of the eyebrow, and backward from that line. Constructiveness, mechanical judgment, power of understanding combinations. He would have made an excellent mechanic; could have worked by the eye as a blacksmith, or could have drawn and modelled as an artist. The fullness across the centre of the forehead, half way from the eyebrow to the hair, indicates memory of events, and places, and dates. The fullness in the middle of the upper forehead shows the power of comparison, analysis, discrimination; and at the centre of the forehead, just where the hair joins, is the region indicating knowledge of character, judgment of human nature, in respect to which thirty-three years ago two examinations culminated. The head shows ample Benevolence, and we have no doubt that he was a man of sympathy, and that hundreds of people have had occasion to know it. The width of the head between the ears is an indication of force of character, courage, thoroughness, efficiency, policy, power of concealment, ability to hold his thoughts under restraint; and his countenance is as expressionless as desirable in a detective. Such a face as that is never astonished, it can suppress its astonishment; can be interested and seem careless; can be very much interested in extraneous things, and apparently careless about them. His Firmness was immensely developed, and he had rather strong Self-esteem: a consciousness of his own merit, and worth, and power, which sustained him. He had strong Friendship, and those who were counted his friends trusted in him. He had a great deal of natural enthusiasm, the spirit of controlling and mastering men in a silent, quiet way.

He had the feminine, intellectual, intuitive sagacity; the power of knowing a good many things to his entire satisfaction before he had time to think them out; and he was more indebted to his mother for his talent as a detective than to his father. He had his father's power, courage, steadfastness, and pride, and the

father's middle section of the face, from the eye to the mouth. Had he devoted himself to engineering, or some of its branches, such as architecture, chemistry, or construction; had he devoted himself to medicine and surgery, he might have been a master in that field, and would have made a first-rate lawyer, or could have been successful in commerce or manufactures.

This celebrated agent of law and justice was of Scottish parentage, and born in Glasgow, August 25, 1819. He was the son of William Pinkerton, a weaver by trade, but who was some time a sergeant of police. William Pinkerton died when his son was about nine years old, from the effects of injuries received while making an arrest. The boy obtained employment with a print-maker, but afterward served an apprenticeship with a cooper. When about twenty-one years old the Chartist movement for a more liberal form of government, with which he was identified, culminated in the Birmingham riots. Several of the leaders were arrested and convicted; some of them were put to death and others received various terms of imprisonment. Young Pinkerton's activity in connection with this outbreak made him a marked man, and so apprehensive of arrest. He hurriedly married Miss Joan Carfrae, a young lady to whom he had been for some time engaged, and on the following day sailed for Quebec. The vessel in which the young couple embarked was shipwrecked near Sable Island, on May 9, 1842, but the passengers were picked up by a passing vessel and taken to Quebec. This misfortune left them in a destitute condition, but they were aided in securing passage through the lakes to Chicago, where Pinkerton went to work at his trade. After a few years he established a cooperage of his own at Dundee, Ill., which became prosperous.

About this time his first piece of detective work was done, almost by accident. He had been in the habit of visiting the islands in Fox River to procure

materials for his stock, and one day he stumbled on a gang of counterfeiters. His love of adventure led him to investigate the operations of the gang, and he was so successful as to break it up. This was not accomplished without much risk, as he was shot at and wounded.

This exploit led to his appointment as a deputy sheriff of Kane County, Ill., a position in which he was instrumental in breaking up several gangs of horse-thieves and counterfeiters. His fame spread to Chicago, and the Sheriff of Cook County offered him the appointment of deputy sheriff. This place he filled for some time, when Mayor Church made him detective of the city force, an entirely new position. In 1852 Mr. Pinkerton became impressed with the importance of establishing a detective agency that would be independent of political influence. Securing the assistance of E. L. Rucher, an attorney, he established his agency and soon had the patronage of several railway companies. Among the four or five men first employed by Mr. Pinkerton was George H. Banks, afterward general superintendent of the agency, who remained with the agency until his death last year. Another was Timothy Webster, who was hung as a Union Spy in Richmond in the late war.

Mr. Pinkerton's agency soon grew to large proportions, and his reputation extended to all the leading cities of the country. One of the first important cases that came to him from the East was that of the robbery of Adams Express Company, at Montgomery, Ala., of \$40,000. He traced the thieves from Alabama to New Jersey, and succeeded in recovering nearly all the money in the original packages. This established his ability for the express companies, and he afterward undertook many other important cases in their behalf, and with success. In 1861 he was employed to look out for incendiaries on the Philadelphia, Wilmington, and Baltimore road, and while at work discovered a plot to assassinate President Lincoln. He at once took charge of the Presidential party while

en route for Washington, and carried Mr. Lincoln safely through Baltimore. When the war broke out President Lincoln authorized Mr. Pinkerton to establish the Secret Service Division of the Army, which he did under the name and title of Major E. J. Allen.

Among the many famous exploits connected with his name, was the capture and conviction of Augustus Stuart Byron, whose father was Lord Byron, and his mother Mary Stuart, and of a young man named Napier, a nephew of Admiral Napier, of the English Navy. These men wrecked a train on the Michigan Southern and Northern Indiana Railroad, and secured a large amount of money by robbing the mails. He was engaged in the pursuit of the James boys in Missouri, losing five men in one year while thus occupied. He declared that he would have captured them had he been backed by the Governor, as Governor Crittenden subsequently backed other detectives. Other operations of his that met with success, were the breaking up of the organization of Molly Maguires in the Pennsylvania coal regions, which occupied a period of eight years, and the extermination of the band of desperadoes led by the four Reno brothers, whose headquarters were at Seymour, Ind. It was through his agency also that the capture of the Bidwell brothers, the Bank of England forgers, was effected, the conviction of the bond forgers Roberts and Gleason, and the capture of the Northampton Bank robbers.

Mr. Pinkerton's success was in a great measure due to his stubborn adherence to several rules that he regarded as cardinal. In the first place, he laid it down as a maxim that a criminal can not keep a crime secret. He has to tell it to some one, sooner or later, and Pinkerton trained his men to obtain the confidence of law-breakers. He also made it a rule to employ honest, reliable men. He had the utmost contempt for the practice of setting a thief to catch a thief. The work done through his agency, whether successful or not, was charged for at unvarying *per*

diem rates. Divorce suits and matters involving family scandals he never touched. The extent of the business done by detectives may be inferred from the fact that his agency has thirty-five detectives connected with the office in New York, forty at the Chicago headquarters, and twenty working with Philadelphia as a centre. It also has a private night watch of 200 men in Chicago, guarding the banks, express offices, and wholesale houses. This force was established over thirty-five years ago when there was no regular police in Chicago.

Besides his detective business, Mr. Pinkerton was a farmer on a rather large scale in Illinois. He owned and cultivated two farms of 750 acres at Onarga, on the Illinois Central Railroad, south of Chicago, where recently he planted nearly a million Scotch larch trees imported for him. He was the author of fifteen volumes of experiences in the disclosure of crime and the arrest of the perpetrators. Among these are the following: "The Spy of the Rebellion," giving a history of the spy system of the United States Army during the war for the Union; "Professional Thieves and the Detectives," and "Thirty Years a Detective."

His death occurred on the 1st of July last, from the effects of a fever contracted several weeks before in the South. He had previously suffered three paralytic attacks—over which a naturally powerful constitution seemed to triumph, but they left him, doubtless, in a much weakened state.

CHINESE paper was invented in the first century of the Christian era, and is made of bamboo. The paper used for making books is very thin and transparent. It is printed on but one side, and is so folded, that every leaf is double with the leaf uncut. Their books are not bound like ours, but every work is divided into a number of separate parts, which are protected with strong paper covers. The parts are then placed in a square case or envelope. Books are very cheap, and are mostly of a historical character.

TRUE RELIGIOUS EDUCATION.

CONSCIOUS of the immense power of the religious sentiments in the human mind, and of the impossibility of separating them without violence from their vital union with the moralities, I have all along felt that the plan of excluding religion from education was inherently a defective one, which could not continue to hold its place against the assaults of reason and truth. In the past position of the question, it was the best which could be followed, and was defensible as the smallest of several evils among which society was compelled to choose. As such I still advocate and defend it; but I think it important that it should be defended and advocated on its true grounds, and not as in itself proper and desirable. Instead, therefore, of recommending the separation of secular from religious instruction, as in themselves distinct, I would adopt the true grounds, and in answer to the wish of some to make all education religious, say: Yes, I agree with you entirely that all education must be based on religion and that the authority of God should be recognized by us all as the only infallible standard in everything; but that we may know what we are talking about, let us understand distinctly what each of us means by religion. Standing on such a basis, we can not be shaken by either Jew or Gentile, Calvinist or Lutheran. Then comes the discussion, What is religion? A says it is a code embracing, suppose, ten principles in all. On examination B, C, and D find that, say, eight of these refer to practical matters directly influencing conduct and character, and that they approve of them as true; but each affirms that the remaining two are church dogmas, untrue, dangerous to salvation and deserving of all reprobation. For these B proposes to substitute other two, but is, in his turn, voted wrong by A, C, and D. The latter two follow with their substitutes, and are each condemned; all, meanwhile, admitting the eight practical principles to be sound and necessary to

happiness. Here it is plain that if the children of all are to attend the same school a compromise must take place; and while all agree to leave out the two articles, they may cordially unite in teaching the remaining eight, and in endeavoring to insure their recognition by the pupils as their best guides and as indispensable links in that religious chain which binds them to their Creator and imposes upon them the primary duty of seeking to know and do His will in all things. This done, let the parents and priests teach what they deem truth on the two disputed points, in addition to the religious principles thus daily and hourly inculcated and brought into practice among both teachers and pupils.

It may be said that this is what is done already. But there is a difference. At present the line of separation between religious and secular education is drawn sharply, and in the school the pupil is not taught that the natural arrangements he studies or sees in play around him have been devised by Divine Wisdom for his guidance and happiness, nor are his feelings interested in securing obedience and gratitude to God as a moral and religious duty in return. The arrangements of nature are taught simply as "knowledge" coming from nobody, and leading only to worldly advantage, not personal happiness. Religion again is taught not as the complement of that knowledge, leading the mind back to God and bearing at every moment on our welfare, but as a something apart, which does not dovetail with our conduct or duties. In short, the prominent idea in the minds of both teachers and taught, under the present national system, is, that secular knowledge and religion are distinct, and have no natural connection; and hence neither exercises its legitimate influence.

But the result will be different if it be recognized universally that, taught as it ought to be, all the knowledge conveyed is inherently religious, and calculated,

necessarily, to bring the creature and the Creator into more immediate contact, and to develop feelings of love, admiration, reverence, and submission to the Divine will. Let it be proclaimed and understood that the inevitable tendency of knowledge is to lead the mind to the Creator, and that wherever it is taught without this result there is and must be a defect of method, or a fault in the teacher, which ought instantly to be remedied. Let it be proclaimed to the four corners of the earth, that education, rightly conducted, is religious in the highest degree, although embracing none of the tenets peculiar to sects or parties, and that a "godless education" is a contradiction and a moral impossibility. It would be as logical to speak of a solar light without a sun. Every truth, moral, physical, or religious, springs from, and leads directly to, God; and no truth can be taught, the legitimate tendency of which is to turn us away from God.

Instead, therefore, of giving in to the opponents of national education, and admitting a real separation between secular and religious knowledge, I would proclaim it as the highest recommendation of secular knowledge that it is inherently religious, and that the opponents are inflicting an enormous evil on society by preventing philosophers and teachers from studying and expounding its religious bearings. If this were done it would lay the odium at the right door, and show that the sticklers for exclusive church-education are the real authors of "a gigantic scheme of godless education," in attaching such importance to their own peculiar tenets on certain abstract points; that rather than yield the right of conscience to others, they are willing to consign society at large to an absolute ignorance of the ways of God as exhibited in the world in which He has placed them, and to all the misery, temporal or eternal, certain to result from that ignorance.

It must be admitted that, as at present taught, much of our knowledge is not religious; but this is an unnatural and avoidable, not a necessary, evil, and it has

arisen, in a great measure, from the denunciations of the party opposed to the diffusion of education. By stigmatizing as infidel and godless whatever knowledge was not conjoined with their own peculiar creed, they deterred men from touching upon or following out the religious aspects of knowledge; and if they be allowed to maintain longer the wall of separation they have erected, the result will continue to be the same as in times past. The only way to meet them is to turn the tables and denounce them as the obstructors and enemies of religious education, because they refuse to allow any exposition of the Divine wisdom and arrangements and will which does not also assume the equal infallibility and importance of their interpretation of His written wisdom and ways. This is a tyranny to which human reason can not continue to submit, and the sooner they are put on the defensive the better.

Science is, in its very essence, so inherently religious, and leads back so directly to God at every step, and to His will as the rule of our happiness, that nothing would be easier or more delightful or more practically improving to human character and conduct than to exhibit even its minutest details as the emanations of the Divine wisdom, and their indications as those of the Divine will for our guidance. In a well-conducted school-room or college-hall, the religious sentiments might be nourished with the choicest food *para passu* with every advance in intellectual knowledge. The constant practice of exhibiting the Deity in every arrangement would cultivate habitually that devotional reverence and obedience to His will which are now inculcated only at stated times, and apart from everything naturally calculated to excite them. So far from education or knowledge proving hostile to the growth of religion in the minds of the young, they would in truth constitute its most solid foundation, and best prepare the soil for the seed to be afterward sown by the parent and priest, who would then receive from school a really religious child fash-

ioned to their hands, instead of being, as now, presented only with the stony soil and the rebellious heart.

The practical inference from all this is, that while we continue to advocate the exclusion of sectarianism of every hue from our educational institutions, we are so far from wishing to exclude religion itself, that our chief desire is to see all education rendered much more religious than it has ever been or ever can be under the present system. To make religion bear its proper fruit, it must become a part and parcel of everyday life. It must, in fact, be mixed up with all we think, feel, and do; and if science were taught as it ought to be, it would be felt to lead to this, not only without effort but necessarily. God is the creator and arranger of all things; and wherever we point out a use and pre-arranged design we necessarily point to Him. If we can then show that the design has a benevolent purpose, and that its neglect leads to suffering, we thereby necessarily exhibit the loving-

kindness of God and recognize it even in our suffering. If we next point out harmony between apparently unconnected relations, and show how all bear on one common end, we necessarily give evidence of a wisdom, omniscience, and power, calculated to gratify, in the highest degree, our sentiments of wonder, reverence, and admiration. If we familiarize the mind with the order and laws of God's providence and their beneficent ends as rules for our conduct, the very reverence thereby excited will prompt to submission—systematic submission because cheerful and confiding—to His will as our surest trust.

Here, then, is the legitimate field for the daily, hourly, and unremitting exercise of the religious feelings in the ordinary life of man, and for the exercise of that true, vivifying, practical religion which sees God in all things, lives in His presence and delights in fulfilling His will.—*From the "Life and Correspondence of Andrew Combe, M.D."*

ORGANIC CEREBRATION.—No. 4.

(*Continued.*)

SELF-ESTEEM.

SELF-ESTEEM is next to be considered. Unfortunately, in America, this organ is not so large as Approbativeness, while it ought to be better developed so as to give a man an intrinsic, interior, personal sense of his ability, worth, and power; and then, if people censure him injuriously, if they ridicule him contrary to propriety, he can stand erect and wait until he gets appreciation. Self-esteem gives a man a sense of individual honor, while Approbativeness gives one a keen sense of the honor which other people may bestow; in other words, reputation. Let it be remembered that the sentiment of honor which is born of conscience, reason, and Self-esteem is individual, intrinsic and interior, while reputation, being only what other people think of us, not that which we think of ourselves,

comes through Approbativeness. Those with large Approbativeness are often called proud, but more correctly called vain; those with large Self-esteem are often thought not to be proud, yet they are really the only proud people we have; such a man, when conscious he is in the right, moves onward with dignity and self-possession; looks with pity or contempt upon the trifling vanities of life and the varying currents of approval and disapproval, according to the giddy guides of fashion; can stand erect as St. Paul stood up, saying, "None of these things move me."

A man with large Self-esteem, good intellect and good morals, and with Approbativeness subordinate, so that its voice is not permitted to be very distinctly heard, moves with a dignified self-respect, stands erect, draws his head well

upward and backward; does not brag; does not try to show off; doesn't seem to care whether people appreciate the good things he says or does; whether they admire his excellent team, or handsome fields, or snug and comfortable home; he does not dress to attract attention, but to clothe himself with decency and cleanliness, and with sufficient regard to public sentiment as not to be eccentric, and he moves with steady strength of character, and many people think that if he had any pride he would try to do as other people do.

The difference between Approbateness and Self-esteem is marked, yet they are often blended in people's estimation, and are convertible terms. Phrenology



Fig. 1.—SELF-ESTEEM AND FIRMNESS LARGE.

understands it differently. To illustrate: A farmer's wife had large Approbateness, and wanted to be in style and have her husband dress handsomely. He was going with a load of potatoes to the village, where he was well known, and a deacon in the church. She ran to the door as he got ready to drive off, saying, "Here, John, put on a better coat." "Oh, pshaw, Mary, they all know me down there"; and he wore the old coat that was fit for the work. The next day he was going with a load of potatoes to a neighboring village, and she insisted that as he was going over there he must put on a better coat. "Oh, never mind, Mary, nobody knows me over there." She wanted him to wear nice clothes where he was known, because he was known, and also where he was not known;

and for the same reason the man insisted on not wearing such clothes as were not adapted to the dirty errand he had in hand. Self-esteem serves to give a man a consciousness of his own talent and worth, and to esteem himself justly, or rather does not produce a desire to be estimated beyond his merit; it gives him a sense of his own personal worth, and makes him believe that he can do whatever it may be his duty to do. If elected to preside over a public meeting, he accepts the position and tries it; but his want of knowledge and expertness is soon seen to the whole house; yet he looks on the congregation with dignity, and will follow the suggestions which intellectual men of experience may offer in the way of motions; while a man who was too diffident to believe himself capable of occupying the position, and declined the election *positively*, as soon as the man with large Self-esteem is fairly seated and his inexperience is shown, the modest man takes exception to the ruling of the chair, argues the points; he really knows how, but he was afraid, with his Approbateness and Caution, to try it. The other, with large Self-esteem and neither Approbateness nor Caution large enough to alarm him, presides, and does not know to this day but that he did it up handsomely.

A man with large Self-esteem governs; he likes to govern; believes he is capable of governing; and sometimes, if he has Combativeness and Destructiveness large, and not very strong Benevolence or social feeling, becomes tyrannical in his control of others. Such a man acquires property to give him power and independence, and sometimes wears poor clothing and drives a shabby team; has a house meanly furnished, and sets a parsimonious table for the sake of gaining property, or saving expense that he may increase his wealth, that he may ultimately stand serenely supreme, the richest man in town. He has real pride in being shabby in his dress and appearance; the pride consists in his feeling that he is not a servant of public senti-

ment; it gratifies his Self-esteem to feel that he is above public opinion. He dignifies work and calls it by its right name; he doesn't talk about obtaining a position and getting a situation. If he is in a bank or store, he will speak of being very much confined by his *work* in the bank or store; and if he wishes to do it, he works in his garden and calls it work; he works in his hay-field and trims his trees and his grape-vines; he carries his own valise, if convenient, and is neither afraid nor ashamed to serve his own wants for the sake of his family.

A dudish and dandy young man in Boston, eighty years ago, started housekeeping in a small way, and having bought a couple of pounds of meat, wondered whom he could get to carry it home for him; and there was a plainly dressed, elderly man stood there and asked what he would give to have it carried home, and he told him a dime; he said, "I will carry it for you," and he trudged along, following the slender understanding of the master of the ceremonies until he came to the door, and as he paid him his money he thought he would ask the old man his name, thinking he might want to get him to do other errands; he replied, "They call me in Boston Billy Gray." He was the John Jacob Astor of Boston, the millionaire of his time. We did not learn whether the business relations were continued; of course it was fun for Gray; we fancy it was not fun for the other, and perhaps he never repeated the story. We judge the young man had the larger Approbativeness and "Billy Gray" had the larger Self-esteem. But there is a point with some men which the possession of a million dollars or fifty millions enables them to reach in character, namely, as Mrs. A. T. Stewart said in a little party of ladies, when she appeared without jewelry, without a ribbon or a flounce on her dress, and saw she was being scanned by some old friend: "This is one of the privileges of wealth, that one can dress as one pleases." Of course, she knew she was richly and nicely dressed, but she did not feel the need of putting on flounces

and trimmings and trappings, as everybody knew she could have all she wanted.

FIRMNESS.

Firmness, the last of this group, may be said to co-ordinate with nearly every faculty, and that sensibly and palpably. What a wonderful hitching-post is Firmness to Conscience, to Self-esteem, to Cautiousness and Approbativeness. When Pierpont cried in a poetic fervor,

"Stand! the ground is your own, my braves;
Will ye give it up to slaves?
Seek ye greener graves?"

he exercised his own tremendous Firmness and invoked every faculty to per-



Fig. 2.—GEO. BANCROFT—FIRMNESS, SELF-ESTEEM, AND CONTINUITY LARGE.

manency and courage and self-reliance, and the manifestation of power. When Veneration was excited in conjunction with Firmness in the Psalmist, he says: "My heart is fixed; O God, my heart is fixed." So, also, when Isaiah said, "Trust ye in the Lord forever, for in the Lord Jehovah is everlasting strength," Firmness and Veneration were working together. When Ruth said to Naomi with the activity of her friendship, stimulated and strengthened by Firmness, she uttered the words which immortalized her name and her friendship: "Entreat me not to leave thee, or to return from following after thee; for whither thou goest I will go, and where thou lodgest I will lodge; thy people shall be my people,

and thy God my God ; where thou diest I will die, and there will I be buried ; the Lord do so to me, and more also, if aught but death part thee and me." What reader has not felt at times—I must stand firmly in this position ; I must call on courage and hope and fear and shame ; I must summon affection and conscience and reason, and rally all that I know or dream or fear, to abide by this central and necessary resolution ? "I am in earnest, I will not equivocate, I will not excuse, I will not retreat a single inch, and I will be heard," said the brave but persistent William Lloyd Garrison ; and with less Firmness than he had, he never would have taken and maintained as he did a stand so unpopular, so unprofitable, so dangerous.

CONTINUITY.

Continuity is located between the Selfish Sentiments and Social feelings, as if it were a middle-man between the two groups. It is different from Firmness in this, that it gives patient application, or persistency, while Firmness gives steadfastness and determination. Let us illustrate the two faculties. There is ice on the Hudson River, and it is capital sleighing to Poughkeepsie, seventy-five miles. On the turnpike it is also good sleighing along the shore. Two men starting for Poughkeepsie with an equally enduring team, one takes the straight, level, solid track on the ice, because he has large Continuity ; he has also large Firmness, and the faculties would naturally co-ordinate. When he has wrapped himself in his blankets and furs, and only his eyes and nose are exposed to the

stinging frost, he is extremely happy in the fact that he has nothing to do but plod, plod, plod, and stick to it until he has conquered the seventy-five miles. The other man has moderate Continuity, but equally large Firmness. He prefers to go winding through the villages where every variety surrounds him, where no two half miles of road are alike consecutively, and his love of change, the up and down hill, and turning curves, and passing elegant dwellings through the villages, keep his mind on the alert all the time. and yet Firmness says, go on, go on, go on, to his team, and the two men reach the hotel in Poughkeepsie at the same moment ; each has been persistent and happy in the performance of the journey. Suppose we change, and let the man fond of monotony take the field of variety, and he that must have variety to be happy take the monotonous route on the ice ; certainly the man on the ice would have nothing to keep him from freezing but the blankets ; he would wonder when, when, when shall I reach that far-distant point ? Fourteen miles and not a turn ! The man on the shore, with large Firmness and Continuity, would feel annoyed by the variety ; everything would seem to be an obstacle, every curve a difficulty, everything that diverted his attention from the central thought an interference, an impertinence, and he would reach his destination very sour and feel much broken up. The other one would emerge from the icy road on the river, saying, "You will never catch me on such a journey as that again ; pelting away in the northwest wind all day, with not anything but ice, and ice, and ice, and distance."

CRANIAL AFFINITIES OF MEN AND APES.

A LECTURE BY DR. RUDOLPH VIRCHOW, OF THE UNIVERSITY OF BERLIN—TRANSLATED FOR THE "PHRENOLOGICAL JOURNAL, etc."

THE question of the descent of man from the ape has taken so prominent a place in the ideas of a great mass of people, that it has become, in like measure, a necessity to learn more inti-

mately the reasons why such a question has been at all called up. The fact can not, indeed, be overlooked that the resemblance of the ape to man is a very striking one ; and it has not been reserved

to our times alone to investigate the subject anatomically. Galen, the celebrated physician of the second century, urgently recommended to all who wished to prepare themselves for the knowledge of man and his diseases, the study of anatomy of those apes which stand "nearest to man."*

This advice was so conscientiously followed down to the close of the Middle Ages that it may be said nearly all the anatomical knowledge of the physicians of those days was derived from the study of the structure of the ape alone. We are therefore by no means astonished to hear when, in the seventeenth century, the first man-resembling ape, in the stricter sense, was brought to Europe,† that it had been called by the natives of Borneo the Orang-outang, that is, the "Man of the Woods"; and people easily acquiesced when, again a hundred years later, the celebrated Swedish naturalist Linné, in his zoological system, classed man under the scientific name of *homo sapiens*, along with the monkeys and some other mammals in one great division known as the Primates.

Since that time people have been endeavoring to ascertain the differences actually existing between the ape and man. For system demands a minute adduction of all separating, and consequently characteristic, peculiarities for each class and species. The single bones and the skeleton of the ape, the muscles, the brain, etc., have therefore been constantly subjected to more minute examination. But these investigations, although at first apparently very fruitful, lost much of their importance in the course of time. It was shown that the various species of apes differed in many

* Claudius Galenus, "De anatomicis Administrationibus." In Lib. 1, cap. 2, he says: "*Simia hominis figuræ quam proximæ simia vel maxime homini similes.*" In the sixth chapter he draws up a list of the animals which, according to their nature, are not essentially different from man (*quæ non multum ab hominum natura recedunt*)—apes, and their different species, bears, mice, bipeds, and ruminating animals.

† Nic. Tulpius Amstelodamensis, "Observationes Medicæ," Amstel., 1652, p. 283, Tab. xiv., gives a description and a drawing of them.

particulars much more from each other than they did from man. This fact became all the more apparent as the number of the really man-resembling apes increased, and numerous specimens arrived in Europe; more especially since the year 1847, when the first reliable information was obtained about that most remarkable of all, the gorilla.

This approach to man, apparently growing closer and closer, aroused all sorts of uncomfortable feelings. The over-smart people, who knew everything beforehand, helped themselves by casting aside the anatomical sequence of the question altogether. They appealed to the fact that even Linné had acknowledged, in the qualification *sapiens* (wise), that it was the mind that constituted the difference between man and other animals. Why, then, were more extended researches needed, when rationally such a determining physiological characteristic was given to man, nay, when every individual could, from his own consciousness, recognize this sharply defined difference? Carl Vogt* has used this method of demonstration in a reversed order, and thereby, indeed, disclaimed it. He collected the reports relating to a large number of human children whose minds had never attained to a truly rational development; whose intellectual attainments had, in part, not even reached as high as those of the anthropoid apes. In this manner he contrasted the manlike apes with the apelike men (if I may so express myself); and while he at the same time showed that the organization of these ape-men was also related in a variety of ways to the simian type, he arrived at the conclusion that the way by which he had entered upon his examinations, that is, the retrogressive one, "constantly approaches the common original stem of the primates, from which we, just as well as the apes, are descended."

It would be, in fact, a much easier task to take certain lower animals distinguish-

* "Ueber die Mikrocephalen oder Affenmenschen." In the "Archiv für Anthropologie," 1867. Vol. ii., pp. 267, 268.

ed from their neighbors by a surprising development of "instinct" out of their surrounding group, than to remove man from the group of the vertebrate. How high do the ants, by reason of their physiological attributes, stand above the great majority of all other insects? But is this a reason why we should set them in a separate class? So does man, according to his whole organization and development, likewise belong to the vertebrate, not merely as his name would appear to imply, according to the structure of his skeleton or merely his vertebral column, but his whole nervous system, and especially his brain; and it must at least be admitted, that without a good and highly developed brain, the human mind could not reach its exalted manifestation. *Man has a rational mind only in so far as he*

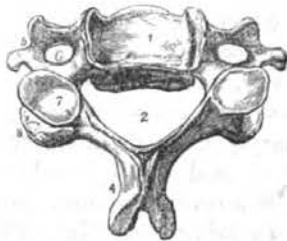


Fig. 1.—A VERTEBRA OF THE NECK.

1. Body. 2. Spinal opening. 3. The pedicle. 4. Spinous process. 5. Transverse process. 6. Vertebral foramen. 7. Superior articular process, one on each side. 8. Inferior articular process.

possesses a brain, and he possesses the latter, again, only in so far as he is a vertebrate animal.

It is easily comprehended, therefore, that the special researches in regard to the resemblance of apes to man have had reference principally to the bony and nervous systems, or more definitely expressed, to the skull and brain. Both belong necessarily to each other, and are mutually necessary in their development. It is, therefore, with a certain degree of right that we can deduce consequences from the bones in regard to the nervous system, and especially from the skull back again to the brain—a method of conclusion which has a really positive importance in palæontology (the science

of extinct species of animals and plants in the earth's strata). Let us now, therefore, look somewhat closer into the theory of the spine or vertebral column.

In all vertebrate animals the fundamental basis of the trunk is formed by the spine. In its early stages, this member is cartilaginous, but, with the majority of all classes of vertebrates, ossified at an early period. Only in the lowest order of fishes does this condition of cartilage continue all through life. All other fish—the amphibia, birds, reptiles, mammals, and man—get an osseous spinal column, which is composed of a varying, but, in the separate classes and species, usually fixed number of separate vertebræ. The vertebræ are placed one above, or in front of the other, being held together by interlayers of cartilage.

The separate vertebræ are generally somewhat differently formed, according to the position which they occupy. In weight, breadth, circumference, the entire structure, they vary according to the determination and functions of the part of the body concerned. Although a great variety in the appearance and form of the vertebræ is thereby occasioned, the groundwork is still the same throughout, and we can thus present, without difficulty, an ideal scheme of the vertebral type. Each vertebra forms a ring or annulus rounded out on the inside; on its anterior we distinguish a thicker and more elevated process, to which is given the name of *vertebral body* (K, Fig. 2); at each side a protuberance, the arches (b), and behind, a part which is generally somewhat higher and jutting more outwardly, the *spinous process* (d). These four parts are repeated in every vertebra.

For a more precise understanding, it is further to be remembered that what in the human being we call "front" or "anterior," is when referring to most vertebrate animals, "under" or on the abdominal side. The upper side in the vertebrates is the back or posterior side in human beings. Since, however, our observations generally commence with Man, we shall commonly use the expres-

sion *anterior* and *posterior* in the sense of the upright position of the body.

In this upright posture we feel in the centre of the back the projection of the spinous processes through the skin. They lie so near the surface that their places can be perceived by the eye at each motion of the body through the skin. The whole row of them is termed the *backbone* or *spine*. The other parts of the vertebræ lie so deep, and in part so surrounded with muscle, it is difficult, or almost impossible, to reach them in the living subject. Nevertheless, feeding-time frequently offers an opportunity to observe the arches of the vertebræ of wild and tame animals, birds, fish, etc. The thicker and more protuberant portions of the vertebral bodies can thus be recognized without any difficulty. In younger animals, for instance in calves, we may see even traces of the original cartilage.

If we select as the subject of our demonstrations the vertebra of the neck of a child (Fig. 2), we discover in the cartilaginous base peculiar osseous centres or germs, which may be likewise composed of several parts; the centre of ossification for the spinal process, for instance (d), being made up of two lateral halves. The older the animal or human being, the larger are these osseous nuclei, since the original cartilage becomes constantly more and more ossified and joining to the centres or germs already present. In adults, they approach constantly, and at last, blending with one another, each vertebra comes to present a single connected osseous formation. Nevertheless, the knowledge of the parts which earlier existed separately (nuclei) is of great importance for the proper consideration of the formation of the skull, as will be shortly made evident.

The space within the osseous ring, the *great vertebral cavity* (h), contains the *spinal cord*. Since every adjacent vertebra possesses a similar cavity, the position of the vertebræ one over the other forms a continuous canal—the *vertebral canal*—which is carried on to the head. In front,

it is firmly closed in by the vertebral body and the intervertebral cartilage; to the side and back the interspaces between the arches and the spinous processes are filled out with a ligamentous mass. In this manner an effective protection is afforded on the one hand for the spinal cord, and, on the other, secures the requisite flexibility. At the point of connection of the vertebral body and the arch, a more intricate arrangement is observed on both sides. The arch here

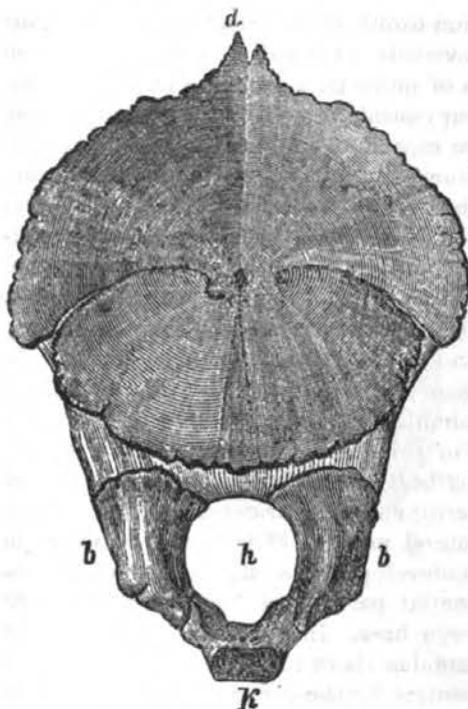


Fig. 2.—IMMATURE CERVICAL VERTEBRA.

throws out two small processes—an internal and an external one—which are so affixed to the body of the vertebra, that between them there remains a small space (the *foramen*) for the reception of a blood-vessel—the vertebral artery (Fig. 1). The inner process has a slight groove on its upper and under surface. By reason of the arches lying one above the other, the corresponding grooves form a horizontal intervertebral canal, through which the nerves of the spinal cord enter and pass out. Finally, the exterior processes of the arches form all

sorts of processes and protuberances to the exterior as well as to the upper and under sides, whereby they constantly assume a more complicated form, especially in the pectoral and lumbar vertebræ. Some of these processes, as the *articular*, serve as a flexible connection of the vertebræ with each other; others are designed for the insertion of muscles; others finally, establish the connection with adjacent bones, especially with the *ribs*.

It is unimportant for our purpose to trace further the larger or smaller transition forms of the vertebræ in the various divisions of the spine. One only of these is of more than common importance for our consideration; and it may, therefore, be especially considered here. That is found at the top of the column, and bears the "globe of the skull," and for this reason it received in antiquity the poetical appellation of *atlas*. This vertebra differs from all the rest in the absence of the spinous process; the vertebral body and the greater part of the osseous substance being pressed into two lateral accumulations, the so-called lateral masses. For this reason it is customary to describe it as an annulus composed of an exterior and interior curvature, and the two lateral masses. The examination of an undeveloped atlas shows that all the essential parts of a vertebra are present even here. In the anterior half of the annulus there lies, as usual, the osseous centres for the vertebral body; but it is from the commencement very small, and ceases to grow at an early date, leaving it only a flat swelling prominence, or knob. Originally separated by a long cartilaginous portion, the arches close together upon it, each with its separate, independent osseous centre, distinguishable as the transverse process, the articular process, and foramen for the vertebral artery; they turn into the relatively strong lateral masses, whose grooved articular surfaces secure the movable connection with the head; for the atlas possesses, in order to make possible the lateral motion of the head, that intervertebral cartilage which we find in all the other vertebræ. Fi-

nally, the posterior segment of the annulus shows a gentle rising in the middle, the mere suggestion of the spinous process to which two parted osseous centres serve as the base.

On account of its remarkable and in the highest degree typical form, the atlas constitutes the most suitable transition to the *cranial vertebra*, whose nature is much more difficult to recognize, and has been known, indeed, for a short space of time. The human skull, as well as that of higher vertebrate animals, is formed in the main from three consecutive vertebræ, which we will designate as the *frontal vertebra*, the *middle or parietal vertebra*, and the *occipital or posterior vertebra*. Each is composed of one body, two arches, and a spinous process, made up of two lateral halves. But all these parts are so peculiarly transformed that long preparatory study is needed in order to recognize their importance. A comparison with the spinal vertebræ is rendered very difficult by a noteworthy circumstance,—the relatively compact and almost immovable connection, not only of the vertebral bodies with each other, but likewise of all the other vertebral parts of the skull,—a compactness which is adapted, in the highest degree, to give complete protection from external influence to that most important organ of the body, the brain. The occipital vertebra alone possesses an articular union with the atlas; the front one hangs firmly on to the parietal vertebra, which latter again is connected firmly with the frontal vertebra.

Just as the atlas represents the transition from the cervical vertebræ to those of the skull, so is the occipital vertebra, by reason of its form, that cranial vertebra most readily comprehended. But we must even here take for our consideration the undeveloped vertebra. On this condition (Fig. 2) all the essential parts of a vertebra are perfectly exhibited. In front lies, as is usual, an especial bone, the vertebral body (k), differing from the bodies of the other vertebræ only by a more flattened form. Connected laterally with

this on either side, by fine cartilaginous seams, is the arch (b), which, by means of its marked condyloid processes, approaches the lateral masses of the atlas, on which its articular centres rest. Toward the case, again, separated by a cartilaginous suture, somewhat thicker than the last, follows the spinous process (d), a cone far exceeding all other parts of the vertebra in size, and just this is the reason why its importance has been so difficult to denote.

This spinous process forms a broad, flat, concave lamina, of relatively thin formation, for which reason it earlier received the name of the *squama occipitalis*. It is that part which forms in every head that slightly perceptible and easily felt protuberance of the occiput; and at the same time the only spinous process of the skull, on which there is to be perceived a real osseous protuberance,—a continuation, as it were, of the backbone. These different parts of the back of the cranial vertebra surround,—still in the form of a ring,—the *great occipital foramen*

(h), being the continuation of the vertebral canal, through which, in fact, the spinal cord ascends uninterruptedly to the brain.

As is easily to be perceived, the change in the form of this skull vertebra, as contrasted with the spinal vertebra, is most strikingly shown by the flat and large expansion of the spinous process. Therein is also stamped the character of the two other vertebræ of the skull. By a still more extended development of the spinous process to *spinal lamina* (or spinous leaves), and at the same time, as already mentioned, a disappearance of

every outward prominence, every node, every apophysis, the upper part of the cranium,—the so-called calvarium, or *brainpan*,—thus acquires that smooth and rounded shape which is the adornment of the human head.

Corresponding to the spinous process is the *frontal bone* of the anterior vertebra, that large osseous lamina reaching to the sockets of the eyes. Although originally consisting of two lateral halves, it unites, in most persons, at an early period in life, and becomes a uniform piece of bone. Only in isolated cases,—

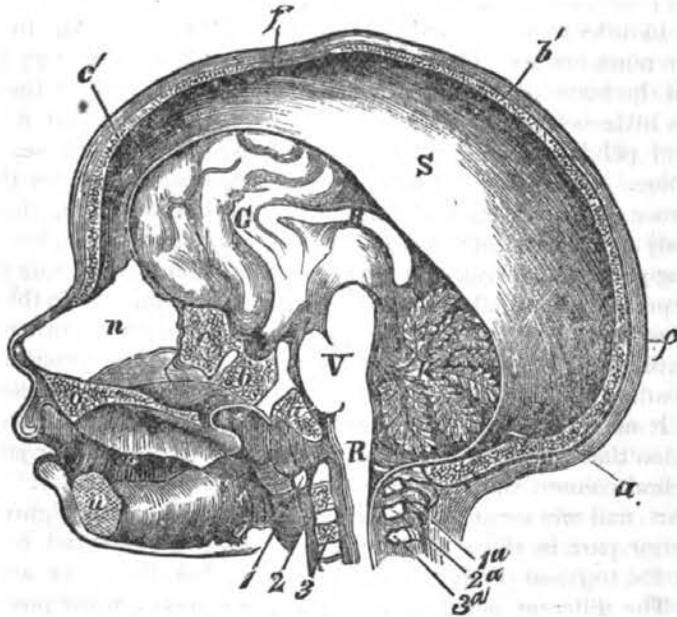


Fig. 3.—INFANT'S SKULL, SHOWING INTERIOR.

with the so-called cross-heads,—it sometimes remains open through life. The latter case is, nevertheless, the rule with the spinal laminae of the central vertebra, which occupies the crown of the head and the sides, and for that reason bears the name of *parietal* or *vertical bone*.

As a rule, therefore, the skull-case of a grown man (and the higher vertebrate animals) consists of four spinal laminae, of which two belong respectively to the anterior and posterior vertebræ, and two to the central vertebra. All four join each other very closely; are, however, bound to one another by *sutures*,—that is, by

firm masses of filaments. While the squamous bone of the occiput becomes, at an early age, inseparably united with the arches of the occipital vertebra by the ossification of their cartilaginous union, the frontal and parietal bones usually remain separated from their arches through life, disconnecting sutures forming on the borders of contact. Easy as it is now, by separating the divisions of the skull, to see the actual connection of the several parts of the occipital vertebra, it was once most difficult to discover those bones which must be considered as the arches and bodies of the frontal vertebra.

In order to understand this relationship we must first exclude from consideration all the bones of the face proper, for these as little belong to the skull as the ribs and pelvis are component parts of the spine. The bones of the face, especially those of the upper and under jaws, are only attachments of the skull vertebræ, being perfectly separable from them. They represent a special system, which is, indeed, one of highest value for the scientific and artistic consideration of the head.

It must further be taken into consideration that what is the forepart in the vertebral column is, in the skull, the under part, and *vice versa*; what forms the posterior part in the spine, in the skull lies at the top, and partly to the front.

The different positions are seen if we examine a vertical section of the head of a new-born child, divided, near the median line, through the head and neck (Fig. 3). We immediately recognize in it the direct connection of the spinal cord (R) with the pons varolii (V), and through it with the great and small brains (G and K). We see further how the mass of the brain, in its full development,* suddenly takes on a development necessitating an increase of space in the highest degree remarkable. The spinal or

* The cerebrum consists of two lateral halves, called hemispheres. They are united in the middle by the corpus callosum (B), and parted by the falciform process (S), a fibrous membrane which presses in between them (Fig. 3).

vertebral canal, therefore, expands when beyond the great occipital orifice, and the widely arched skull-cap adapts itself to the rather narrow and symmetrical vertebral column.* On the skull we distinguish, as already said, the roof and base of the skull,—the first being formed by the occipital squamous bone (a'), the parietal bone (b'), and the frontal bone (c'), which are connected by sutures (f and f'). In order to find the vertebral bodies, appertaining to the above, we must direct our attention to the base of the skull. Here we see first of all, in an easily recognized form, the body of the occipital vertebra (a). In front of it, and separated in children by a layer of cartilage, we find the body of the middle cranial vertebra (b), which in new-born children is only imperfectly separated by intermediate cartilage from the bodies of the frontal vertebra (c). In front of this we see a large cartilaginous mass (n), which reaches on the one side to the base of the skull, forming here the ethmoid bone, and serving on the other side as the groundwork for the formation of the partition wall of the nasal cavities. The latter reaches to the upper jaw (o), which faces the nearly isolated lower jaw-bone (u), and the inferior maxillary.

On this figure, which discloses to us the essential components of the facial skeleton, we are more especially interested in the position of the bodies of the frontal and parietal vertebræ. How was it possible to overlook, for so long a time, a relationship apparently so clear? This is explained by two reasons. Formerly it was not customary to bisect the skull in the manner here described, and then not only prejudice, but also the consideration of preserving the total connection of the bones, had to be put aside.

* The figure is taken from Virchow's "Untersuchungen über die Entwicklung des Schädelgrundes im gesunden und kranken Zustande, und über den Einfluss derselben auf Schädelform, Gesichtsbildung, und Gehirnbau." Berlin, 1857.

In plate 3, the numbers from 1 to 3 indicate the three uppermost cervical vertebræ; those from 12 to 32, the spinous processes, belonging to them. Between the bodies is to be seen the intervertebral cartilage.

Again, the true relation was to be seen only in the skulls of very young children, being obliterated more and more with each year of life, so that at the age of maturity it is hardly distinguishable. In the adult we no longer find distinct and separate vertebral bodies, but a single connected bit of bone, the nape or nuke bone (ostribasillare) which has arisen from the cohesion of the bodies of all three skull vertebræ. Till about the twentieth year the body of the occipital vertebra remains still separated by cartilage from the other parts, and its importance was consequently less mysterious. On the other hand, the consolidation of the anterior vertebral bodies takes place at so early an age that they have been considered, from of old, under the common name of the *wedge* or *sphenoid bone*, as a single and inseparable piece of bone. But modern science has taught that the anterior sphenoid (c) is the vertebral body of the frontal bone (c'), the postero-sphenoid bone is the vertebral body of the parietal bone (b'). The connection between these parts is made by special "wings," which again correspond to the arches of the ordinary vertebra. In this manner the whole skull can be conceived as being composed of three vertebral rings, placed one behind the other, and closely connected.

The disclosure of this relationship, in itself so simple and yet so mysterious, rests entirely upon the progressive views gained in the "history of development." This science is still in its infancy. Even the method of the thought, the special direction of observation through which it was created, was quite hidden from antiquity and the middle ages. Its discovery is due to German inquiry; and, remarkably enough, one of the immortal services of our greatest poet. Incited by Lavater's physiognomical studies, Goethe had turned his attention to the study of anatomy, and during many years of persevering labors he acquired great insight into the fundamental processes of organic life. The poet sought, as he himself has said, "the idea of the animal"; and be-

hold, what had till then remained closed to all, revealed itself to the "prophetic eye" of such an investigator. An accident, it may be said, gave the conclusion to his thoughts. One day, while on his second Italian journey (1790), when visiting the Jewish cemetery in Lido, his attendant picked up from the sand a fractured ram's-head, the single parts of which could still be recognized. "I had then," says Goethe, "the whole in its most universal completeness."*

Subsequently the priority of discovery was disputed. The first conception was ascribed to the old magician (Bishop of Ratisbon), Albert the Great; again, the honor was given to the celebrated physician, Peter Frank. I have proved, in another place, that this is not so. The only person whose claims have any importance whatever is Goethe's younger contemporary, Oken, the renowned Jena, anatomist and zoologist. But he himself has given August of the year 1806 as the date of his discovery,—when, on a holiday journey in the Hartz Mountains, he slipped down on the steep sides of the Ilsestein, and suddenly saw at his feet "the most beautiful bleached skull of a hind." "Lifted up, turned round, looked at, and it was done. It is a vertebral column! The revelation flashed like lightning through bone and marrow! And since that time the skull has been a vertebral column."

Oken has incontestably the merit of first working out his thoughts scientifically, and bringing the discovery to general recognition. But it is not true that it was *first* revealed to him; and though it is certainly a remarkable coincidence that, in both cases, an accident of a journey should place the decisive object before the eyes of an already ripe investigator, there will still remain with the ram's-head the honor of being instrumental in discovering the "theory of the vertebrate skull."

(To be continued.)

* See Virchow's "Goethe als Naturforscher." pp. 61, 102.

LANGUAGE.—No. 6.

RISE AND PROGRESS OF THE ENGLISH LANGUAGE.

THE English language is a composite one, being made up of a mixture of German, Saxon, Danish, French, Greek, and Latin elements. Britain was originally settled by a people called *Gaels* or *Gauls*, or more properly *Celts*. They came from a country at that time called *Gaul*, but which is now called *France*; and their language was termed *Gothic* or *Celtic*, one of the most ancient languages in the world. The *Celts* are said to have been descended from *Gomer*, the son of *Japheth*, the eldest son of *Noah*. At the time of their settlement in *Britain*, their language was an unwritten one, for when *Julius Cæsar* invaded the *Island* about half a century before the *Christian Era*, he found the inhabitants ignorant of letters and destitute of any history except oral tradition, which was mostly in the hands of their priests, the *Druids*, and which had been made into verse, and transmitted from one generation to another in the form of odes or songs; a practice which has already been alluded to.

The only thing which can extinguish or essentially change a language is conquest. The language of the *Celts* was in time almost wholly obliterated by the successive invasions of other nations. The *Romans* under *Julius Cæsar* made the first conquest of the *Island of Britain*. They were in possession about 500 years, and left there in the year 446, without having been able in five centuries to impress their language and customs upon the native inhabitants sufficiently to change to any appreciable extent their original tongue. The first invasion which wrought any permanent change in the language of the *Island* was that of the *Saxons*. The *Saxons* entered *Britain* in 449. About the same time came also the *Angles* and the *Jutes*. These all came from the same quarter of the world—from the continent of *Europe*. Of the *Jutes* and their dialect but little is known.

Their number was small, and their influence upon the common speech of the country, then in the formative stage, insignificant. The *Angles* seem to have been a people even more rude and barbarous than the *Saxons*; they were fierce, warlike, and enterprising; and by reason of these qualities—qualities which have since made their descendants the virtual masters on both land and sea—they, although few in number as compared with the *Saxons*, succeeded in fixing their own name upon the conquered territory, which was now called *Angle-Land* and from which is derived the modern designation—*England*. The languages of the invaders were, both of them, dialects of the *Gothic* or *Teutonic*, and their amalgamation formed the *Anglo-Saxon*.

Next came the *Dane*, who contributed his share toward the formation of the national tongue, and lastly, the *Norman*. The great body of the language, however, after the invasion of the *Saxons* and *Angles*, was *Saxon-English*, or as it has usually been termed, *Anglo-Saxon*, and such it continued to be for a long period afterward, notwithstanding the additions and alterations made by the incorporation of *Danish* and *Norman* elements subsequently. These changes in the language of the *Island* were very gradually made. The *Norman* appears not to have mixed with the *Anglo-Saxon* very readily at first. The court of the conqueror, as also the courts of his descendants for many successive reigns, heard and spoke but little *Saxon-English*. This was owing to the fact that the nobility endeavored to mark their rank by the employment of a language differing from that of the common people; that is, a tongue made up in large proportion of *Norman French*, as compared with that in use among the people generally, and called, by way of distinction from the latter, the *King's English*. A difference of speech and a foreign accent thus became a mark of

aristocracy. But the lower orders, aping the manners of the higher classes, strove to imitate their mode of speaking, until finally the foreign element became thoroughly incorporated with the language heretofore in use, so that in time the speech of king and subject, noble and plebeian became everywhere the same, and was henceforth known as the English language.

In the meantime the ancient Celtic has been almost wholly extinguished, and exists now only in certain dialects of that tongue, sometimes heard in Wales, in the Highlands of Scotland, and in certain parts of Ireland; and even in these localities it is rapidly dying out.

The language of Great Britain had now become the English language. This was about the middle of the thirteenth century. A short proclamation issued in the year 1258, in the reign of Henry III., is usually regarded by philologists as the first specimen of purely English composition as distinguished from Semi-Saxon. Yet Dr. Johnson declared that the English of any period during the thirteenth century, the best of it, would scarcely be intelligible to modern readers. He called it a kind of intermediate diction, neither Saxon nor English. In his opinion, Sir John Gower, who wrote in the latter part of the fourteenth century, more than 100 years after the issue of the proclamation above alluded to, was the first British author who could properly be said to have written English. Contemporary with Gower was Chaucer, the father of English poetry.

It is interesting to trace our language through the various stages of its progress and development from the end of the thirteenth century down to modern times. Edward III., who reigned from 1326 to 1377, was the first sovereign to encourage English composition. He himself set a good example by making English the language of his court, and by discontinuing the Norman in all law proceedings. During his splendid reign there was a revival of Anglo-Saxon genius, and the English language began a vigorous growth.

After having passed through so many successive periods of amalgamation it needed constructing anew. The English language has been highly favored with minds of rare eminence, that have brought out the inherent power and vitality of their native tongue. In each period of its growth, authors of grand and varied styles have given it transparency and copiousness. They arrayed it in garments it had not before worn, as in their fertile brains ideas germinated which were not stirring the minds of the masses, as in their souls spiritual cravings started up which were unfelt by others. Chaucer was a living worshipper of nature, and left the language wealthier in descriptions of natural objects. He was followed by a vast assembly of poets who have consecrated it as a temple in which to pour forth great jubilees of song.

In the Elizabethan era of the sixteenth century, words by thousands were naturalized, and the language was endowed with rare powers of intellectual and spiritual expression. Spenser, with his exquisite fancy and creative genius, drew out its fine musical harmony and the unsuspected richness of its diction. Shakespeare, the myriad-minded, developed and improved the art of bodying forth visions of the imagination, and of revealing internal and immortal conceptions to a perfection before unknown, and which has not been equalled since. Milton gave an example of the solemn awe with which our language could be marshalled into verse to unfold a drama which has human life for its first scene, immensity for its theatre, and eternity for its conclusion.

Thus by the minds and works of poets was this rough, rude, and imperfect implement refined and polished until it mirrors forth in all their delicacy the emotions that fill and agitate the human breast. Bacon and Locke, earnest seekers after truth in natural and mental science, enlarged the phraseology of our language to explain and elucidate abstract reasonings and the gathered facts of observing and inquiring minds. After these followed on Addison, Johnson,

Goldsmith, and all the brilliant essayists, satirists, wits, historians, and reformers of that period who contributed largely to exhibit its keen-pointedness, its sharp outlines, its fertile versatility, its pliant adaptedness, bold simplicity, and strong dignity. These were the methods and these the means by which our language, harsh and uncouth at first, was at length brought to its present high state of excellence and development, gradually winning its way by its own inherent merits and by the richness of its literature, until now it takes rank with the foremost living tongues of the civilized world. "The English language"—observes the eminent philologist, Prof. Grimm,—“possesses a power of expression such as never perhaps was obtained by any human tongue. Its altogether intellectual and singularly happy foundation and development, have arisen from a surprising alliance between the two noblest languages of antiquity, the German and the Romanesque, the relation of which to each other is well known to be such, that the former supplies the material foundation, the latter the abstract notions.” “In richness, sound reason, and flexibility, no modern tongue can be compared with the English. Not even the German, which must shake off many a weakness before it can enter the lists with the English.”

The vocabulary of the English language contains at present about 100,000 words, of which the one-half are of Saxon or Anglo-Saxon origin. About one-half of the remaining half are from the Latin and the modern German; leaving still one-quarter of the whole number to be divided between those of Greek and those of French extraction, including also about thirty words from the Celtic, and a few from the Danish and various other tongues. The names of most of the objects of sense, concrete and perceptible things, the terms which occur most frequently in ordinary conversation, are Anglo-Saxon. Thus, for example, the names of the most striking objects in visible nature, as the *sun*, *moon*, and *stars*,

are Anglo-Saxon. From it too we derive the terms which are expressive of the affections, and of the nearest and dearest relations; such as—*father*, *mother*, *husband*, *wife*, *son*, *daughter*, *brother*, *sister*, *child*, *kindred*, *friends*, *home*, etc. Almost all general terms expressive of abstract ideas are from the Latin, while special ideas are expressed in Anglo-Saxon. Thus, *crime*, *color*, and *motion* are from the Latin, but the different species of crime, as *theft*, *murder*, *lying*, etc., the different kinds of color, *white*, *blue*, *red*; also *run*, *slip*, and some other kinds of motion, are from the Anglo-Saxon. *Swine*, *ox*, *calf*, and *sheep* are Saxon; but *pork*, *beef*, *veal*, and *mutton* are Norman French. As long as these exist as mere animals, each is called by its Saxon epithet; but when they become matters of enjoyment and luxury, then each takes on a French name. “The superiority of Saxon-English, or rather of Non-Latin-English,” says Mr. Herbert Spencer, “consists in its comparative brevity and greater flexibility. A child’s vocabulary is almost wholly Saxon. He says, ‘I have,’ not, ‘I possess’; ‘I wish,’ not, ‘I desire’; he does not ‘reflect,’ he ‘thinks’; he begs not for ‘amusement,’ but for ‘play.’ He calls things ‘nice’ or ‘nasty,’ not ‘pleasant’ or ‘desirable.’ Those words which are employed to designate rank or official station, titles, etc., such as *earl*, *chief*, or *marquis*, as also the names of articles or things in use among the wealthy and refined, such as *bureau*, *toilet*, *sacri-toire*, *parlor*, etc., are of French origin. The Latin contributes largely to the language of polite literature, and furnishes most of the terms used in the arts and sciences.”

Of the vast number of words of which our vocabulary consists, it is surprising how few are in general use. To the great majority of even educated men, three-quarters of these 100,000 words are almost as unfamiliar as the words of the Greek or the Choctaw languages. It has been calculated that a child uses only about 100 words, and unless he belongs to one of the educated classes, he will

never perhaps have occasion to employ more than 300 or 400. A distinguished American scholar estimates that persons of fair average education and intelligence use not over 3,000 or 4,000 words, while few speakers or writers employ as many as 10,000. Even Milton, whose wealth of words seems amazing, uses but 8,000, and the all-knowing Shakespeare only 15,000 words.

The English language, although arrived at a high degree of refinement, is, however, in its orthography, and in its written representation, almost in the primitive ideographic stage. Its written words are symbols of ideas rather than of sounds, and it is only after long, severe, and harassing practice that the learner can be sure of associating the right sound with the right sign. The English alphabet, to begin with, is both defective and redundant. It is defective in the means of representing certain sounds, and redundant in that the same sound may be represented by two or more of its characters, sometimes the one, and sometimes the other of which is employed in a manner that savors of caprice. Yet imperfect as is our alphabet, our method of employing it in the spelling of words is, in other respects, much worse. The symbols composing it are used in such various senses, that the mind of the learner becomes perplexed. Digraphs must be treated as single letters, quite as much as the single letters themselves; for they have not the value of a combination of letters, but of one letter only. One philologist of some note declares, that, viewed in this light, the English alphabet will be found to consist not of twenty-six letters alone, but of more than 200! and that almost every one of these 200 symbols varies its meaning at times. In fact, we violate every principle of a sound alphabetical system more outrageously than the people speaking any other tongue whatever. Our written characters do not correspond to our articulations, and our spelling of words can not be matched for irregularity and caprice. As an example of the same spelling with difference of pronunciation,

take the words *bough*, *cough*, *hiccough*, *tough*, *though*, *through*, and *ought*. Of the same pronunciation as the last word, but spelled differently, is *ought*; but in *draught* we get a different pronunciation, and in *draft* again, a different spelling. So too in *rough* and *ruff*. But a better example of the latter, that is of the variety of ways of representing the same sound, is to be found in certain words in which the vowel sound heard in their pronunciation is that of "I"; for instance, *eye*, *by*, *lie*, *height*, *night*, *rhyme*, *stye*, *guy*, and *life*. These orthographical difficulties beset the pupil at the very commencement, and if it be a child, it soon loses confidence in itself, and begins to rely upon the teacher, to the prejudice of its logical faculties if it possess any.

It may be asked just here: "How did such an unfortunate state of things come about?" That is easily explained. The inventors of the first alphabet, the Phœnicians, made it, as far as they were able, on phonetic principles. Although it seems not to have been perfectly phonetic; for perfection is a quality we can scarcely expect in any performance of the human intellect; yet it was more phonetic than any of the alphabets which have succeeded it. The Greeks obtained the alphabet from the Phœnicians, making some changes and some additions thereto. If the Phœnician characters did not represent the spoken sounds of their own tongue with entire accuracy, they certainly represented those of the Greek much worse. The Romans adopted from the Greeks the alphabet thus changed and enlarged, making in it a few unimportant variations, notwithstanding which it still remained very inadequate to the representation of the Latin. Finally, to make the recapitulation of what has previously been said complete—the Northern hordes of barbarians who came down like locusts upon the Roman Empire—all except the Slavonic tribes, who appear to have had alphabets of their own, seizing upon Roman letters among the other spoils with which they loaded

themselves, violently contorted them to the representation of languages which differed greatly from the Latin, both in the number and quality of their elementary sounds. Each tribe or nationality used the Roman alphabet after its own fashion, and the variety of methods thus introduced was, as may be supposed, very great. The English language being a composite one, made up of words and variations of words and elements drawn from other languages, the mode of spelling and writing each word was taken along with the word itself from the language from which the latter had been derived. Custom sanctioned the abuse, and at the present day we have a mode of spelling so far removed from any apparent attempt to represent the sounds of speech, that we should scarcely have guessed there had ever been any intention of doing so had we not known its history. The present alphabet, considered as the groundwork of a system of orthography in which the phonetic principle prevails, is a complete failure.

Philologists, as well as other learned men, have long been aware of the absurdities of English spelling, as well as the inadequacy of the present alphabet to represent the elementary sounds of English speech, and some attempts have been made to remedy both. There are two ways in which improvement could be made. The one is to make better spelling with the alphabet we have, make our spelling more phonetic, abolishing all such absurdities as *p-h-t-h-i-s-i-c-tizic*, *s-l-e-i-g-h-t-slite*, and the like. This improvement, as will be seen, relates to the spelling alone, and attempts have already been made in this direction by our lexicographers. Dr. Webster in leaving out the "u" in such words as *honor*, *labor*, *favor*, etc., has done something toward simplifying our spelling. Another change which he made was the reversing of the relative positions of the vowel and consonant in the last syllable of such words as *metre*, *theatre*, *nitre*, etc., making them to stand thus, *meter*, *theater*, *niter*, etc.; but he did not carry this re-

form to its logical conclusion. In the classification of the letters of the alphabet *l* and *r* constitute a division by themselves, and are termed *liquids*; and any orthographical rule which applies to either one of these two letters applies also to the other. So if there is any good reason for making the change he did in the spelling of the words above given, the same reason exists also for making a like change in the spelling of such words as *bible*, *rifle*, *apple*, etc., and these by the same rule should be spelled *bibel*, *rifel*, *appel*, and so on. It is true that in words of the latter class in which *l* is the consonant which precedes the final vowel, the orthography does not seem to us to be so anomalous as in the case of words of the former class in which its cognate *r* is employed, but we think that this arises from the fact that the words of the latter class are so much more numerous than the others, that we have become more accustomed to seeing that style of spelling in the one case than in the other, and have thus become more familiarized with it, and in a manner reconciled to it.

The other method of improving the orthography of the language contemplates a more radical reform, no less than the making of a new alphabet which shall, with more accuracy than the present one, represent the elementary sounds of speech. This is going back to first principles, recurring to the idea of the inventors of the first alphabet from which, in course of time, we have so far departed. It would revolutionize the entire written representation of the English tongue.

More than fifty years ago a Cherokee Indian, by name *See-qua-yah*, or in English, George Guess, invented, for the representation of the dialect of his own tribe, an alphabet which was almost perfectly phonetic, and which was in every way a complete success. The history of its invention and the circumstances which led to it, as related by the inventor himself, showing the analogy between the mental processes of this unlettered savage and the different successive phases which

writing was made to assume by the ancients in their attempts to form a written language, as also the close resemblance between the final results in the two cases, make a narrative of exceeding interest.

At the time of St. Clair's defeat by the Indians, a letter, by some means, fell into the hands of the latter, which, when the purpose and functions of such a document became known, greatly excited their curiosity. In their deliberations respecting it, the question arose, whether the power of the *talking leaf* was the gift of the Great Spirit to the white man, or the discovery of the white man himself, without such supernatural aid? Most of the Indians were of the former opinion, while a small minority, among whom Guess stood prominent, maintained the latter. Some time afterward he had an attack of white swelling in his knee, which resulted in a shortening of the diseased limb, making him a cripple for life. Deprived now of the excitements of war and the pleasures of the chase, in the long days and nights of his confinement, his mind reverted to the mystery of the *speaking sheet*, and he thought he would try to see if he could not himself find out a way of making a leaf or sheet of some kind that would talk. So, taking a piece of bark and his hunting-knife, for he was, as yet, ignorant of pens and ink, he set resolutely to work. He first made pictures of different objects, to convey the ideas of his own mind to others: the hieroglyphs of the Egyptians. He soon abandoned this method, however, as too difficult or impossible. He then tried arbitrary signs, as those had done. This was the ideographic stage. But these signs soon became so numerous that he was forced to eliminate the greater part of them; and when he had gotten their number reduced to about 200, he thought his task was nearly accomplished. But still this was not altogether satisfactory, and he now began to pay more attention to the sounds of speech, and by doing so he was able to make a further reduction in the number of his signs to eighty-six. He was here passing rapidly over into the phono-

graphic stage. The thought now struck him to endeavor to ascertain, as accurately as may be, the simple elementary sounds of the Cherokee tongue, and then to make a sign for each of them, and for them only. He had now taken the last step in the progress; that is, from ideography to phono-graphy; had fully accomplished the last stage in the mental process, and it only remained for him to carry it out in practice. His own ear not being remarkably discriminating, he called to his aid the more acute ears of his wife and children, from whom he derived great assistance, especially from a daughter that he had, who seemed to enter into the genius of his labors. An alphabet of *sixteen* letters was now formed, and the invention was complete.

Here, then, we have a North American savage in his wigwam in the wilds of the great West, with nothing but a few pieces of bark and his hunting-knife, constructing an alphabet of his own tongue on philosophical principles, passing, in a few months, through all the mental processes of the invention, processes exactly similar to those of the ancients, but which it required them centuries to execute, and by a like analysis resolving vocal speech into its ultimate elements, and arriving, at last, at the formation of an alphabet of letters, few in number, but representing these elements with phonetic accuracy. The most remarkable fact in the history of this affair, is the correspondence in number of the Cherokee alphabet with that made by the Phœnicians; for that, as we have already stated, consisted originally of only sixteen letters, the others being added subsequently by the Greeks. Now, we do not presume that there is any similarity between the language of the ancient Phœnicians and the Cherokee dialect; but in the making of the two alphabets, this correspondence shows an agreement between the two parties in regard to the number, at least, of the simple elementary sounds of human speech.

In the year 1835, Mr. Isaac Pitman, of Bath, England, invented a system of

shorthand writing, entirely phonetic, and which he called Phonography or *Sound-hand*; that is, writing by sound. This was completely successful, and has now, for the most part, superseded all other systems of stenography. This suggested to Mr. Pitman the idea of an alphabet made on phonetic principles for the ordinary purposes of writing and for printing—Phonotypy. So he constructed an alphabet, made up partly from the alphabet at present in use, some of the characters changed a little; others without change, and the addition of some new characters. He now issues books and pamphlets printed in the new style. This gave rise to an agitation of the subject in England, which still continues, and is increasing. It has also extended to this country, and phonetics have, of late years, formed the principal topic of interest and discussion at the annual meetings of the American Philological Association.

Other phonetic alphabets have also, since, been constructed here. The main difficulty in the way seems to be the want of agreement as to what are the elementary sounds of our language and the number of them. Their number is variously given at from thirty-eight to forty-two, according to the views of the enumerator.

In the construction of a new and better alphabet, there are a few important points to be considered and kept steadily in view:

1st. The true and only office of alphabetic writing is to represent faithfully and intelligently the sounds of speech.

2d. The correct ideal of an alphabet is one in which every sound shall have its own unvarying sign, and every sign its own unvarying sound.

3d. No language has ever yet had, or is ever likely to have, a perfect alphabet.

4th. An alphabet intended for general use should not attempt to represent the minute shades of difference in the utterance of vocal sounds. This would be impracticable at any rate, in view of the fact that these sounds vary in different localities; but a better alphabet would

doubtless tend to a greater degree of uniformity in this regard.

5th. The Roman alphabet has now become so widely and firmly established among the civilized nations of the earth, that it can not be entirely displaced; therefore in the making of a new alphabet, as many of the old characters should be used as might be found available for the purpose.

An altered orthography, no matter how great its superiority over that at present in use, would, no doubt, be offensive to most people at first. But this is inevitable. Besides, it is the history of all reforms when first introduced. We feel quite sure, however, that could a new system of alphabetic writing be devised, phonetic in principle, and at the same time sensible and consistent, one possessing real inherent merit, it would, in a reasonable length of time, win the hearty preference of the mass of readers.

At the centennial convention for the improvement of the orthography of the English language, held at Philadelphia in 1876, Mr. Towe, principal of a grammar school in Norfolk, Va., in speaking of the capacities of the colored race in the acquisition of knowledge, said: "They spell naturally, in the simplest manner, and can not be persuaded that silent letters have any use. They spell *friend, fotograf*, etc., and will not use the irregular forms of our present spelling. It would be greatly to their advantage to have a revised system of spelling. It would greatly add to the facilities of education, which the colored people need so much." Another delegate to that convention, Rev. Mr. Robertson, missionary to the Creek Indians, whose dialect is much the same as that of the Cherokees, and from whom they have learned the phonetic alphabet of George Guess, said: "The young Creek Indians learn more during the one day's preaching in Sunday-school, by the aid of their phonetic alphabet, than the children of the missionaries learn during all the rest of the week by means of the ordinary English spelling. A pupil has been known to learn to read phonetically

in one day." Mr. S. V. Blakesly, for twenty-one years an editor on the Pacific coast, though not present in person at that convention, in writing to it, expressed the conviction that no subject in science or art more important than that of orthographic reform, had come before the world within the last half century. And such seemed to be the general opinion among the delegates.

An improvement in our English orthography would, no doubt, enable hosts of the ignorant to learn to read books and periodicals, and immensely facilitate the acquisition of our language by foreigners; and without an item of injury to our literature, would also greatly contribute to the intellectual advantages of all our people.

JAMES COULTER LAYARD.

BLARNEY CASTLE AND THE BLARNEY-STONE.

WHO has not heard of the "Blarney-stone"? — allusion being often made to it, when one is speaking of a person who possesses readiness of tongue. The Blarney-stone is related to one of the most interesting ruins of Ireland, the Castle of Blarney, which is situated about five miles northwest of Cork. The neighborhood, however, has a history much older than the castle, for in the early ages, two thousand or more years ago, it was a place of importance to the Druids. There those semi-barbarous people performed their strange rites, and relics of their worship remain still.

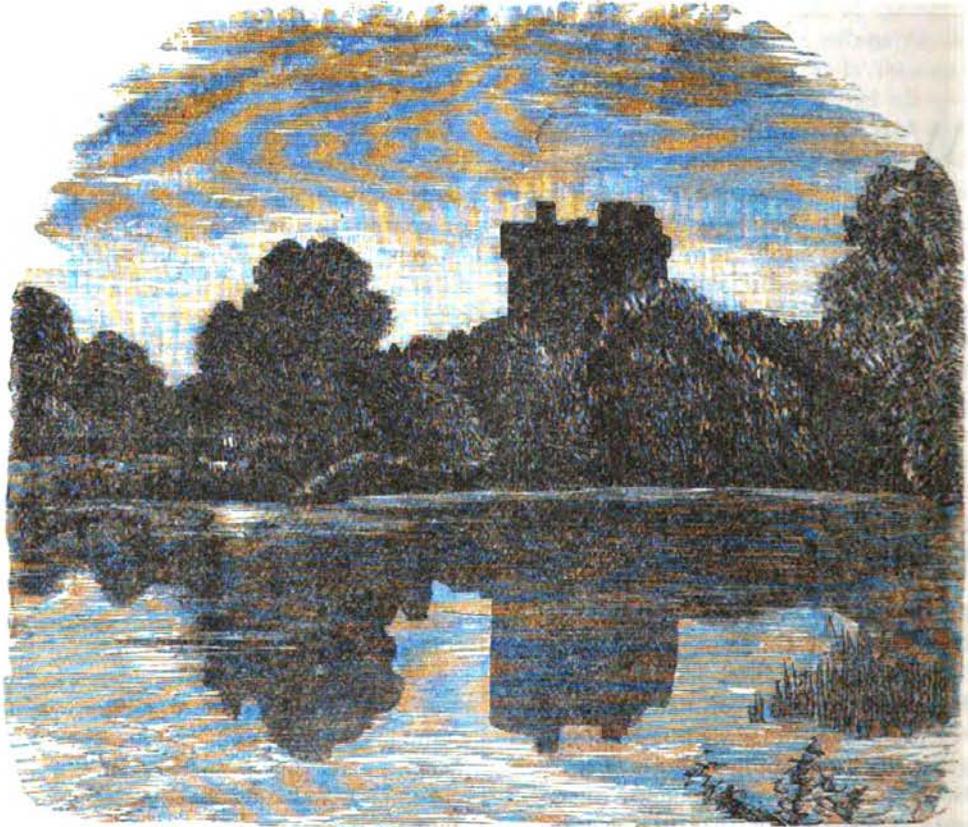
The castle was built in the year 1449, in the midst of a fertile valley on the banks of the Comaun, a small stream. Evidently it was intended to subserve an important purpose of defence in those stormy days, as may be inferred from the great thickness and strength of its walls. Several times it was the centre of sanguinary conflict. In 1643 it was besieged and taken by Lord Broghill; after the Restoration, it sustained a siege by the army of William, and was then in a great measure demolished, together with other fortifications that were originally very extensive. Little indeed was left intact, save the walls of the large tower or donjon that rise about 120 feet above the ground, and form a very prominent feature in the landscape. Attached to it is the well-wooded demesne, comprising a mirror-like lake and the "Sweet Rock Close." Although the place has its picturesque

attractions, including the stream, and the lake, and tower, and the little town near, yet the chief point of interest for the visitor centres in the stone, that, to use the language of Father Prout in his "Plea for Pilgrimages," "is endowed with the property of communicating to the happy tongue that comes in contact with its polished surface, the gift of gentle insinuating speech, with soft talk in all its ramifications, whether employed in vows and promises light as air, such as lead captive the female heart, or elaborate mystification of a grosser grain, such as may do for the House of Commons—all summed up and characterized by the mysterious term 'Blarney.'"

The southern and eastern sides of the tower are surmounted by parapets having numerous openings, and several small chambers, closets, and dormitories occupy the north side from base to summit, and are reached by a very steep, narrow, winding stair. On top, the wall is broad enough to make a good foot-path; and that part of it where the famous stone is to be seen, is held in its place by irons. In order to reach it one must lean out through an opening between two and three feet wide; and the visitor who has no assistance, can not expect to secure the mystic influence, by an application of his lips to the stone; to attempt that would be to fall headlong down. One who ascended the tower and surveyed the prospect that it commands, says: "There is no door left in it from the

foundation to the top; I cautiously crept to the edge of the wall, and while the sides of the old castle seemed to sway to and fro, I reached out to the parapet and touched the stone with my finger tips; this is as near as I ever got to it; but I have had enough. There is a stone downstairs on the ground floor which is far more convenient, and is usually substituted for the original."

heath-blossoms here and there distributed over it, that appear as if they were natural products of the soil. There are shady retreats that command very pleasing views of the neighborhood. Other objects of interest to the tourist are pointed out; for instance, a flight of steps, roofed in by massive stones, that leads down to the "inch" or island, washed by the waters of the Comaun. This is known as the



BLARNEY CASTLE.

For more than four hundred years this castle has been the sole feature of importance, in a cheerless, though lovely landscape. At the base of the tower we find the prisons, two gloomy, ill-ventilated halls; a little to the west of the donjon is the cave, a low, dark, subterranean passage; in the immediate vicinity of the castle is the Rock Close, an area of a few acres of ground, tastefully laid out, with numerous rocks covered with lichens and

"Witch's stairs." Adjoining it is the "Witch's kitchen." On the island stands a cromlech of immense size, covered by a luxuriant growth of moss and lichens. This is a relic of the ancient Druid worship, a form of devotion supposed to have been derived from the Phœnicians. The ancient Celts probably sacrificed to Baal; and here on this altar offered up their victims, a thousand years or more before the foundations of the castle were laid.

ROBIN AND THE PHRENOLOGIST.

THE following sketch by Mr. W. Cross is not only characteristic of the rural Scotsman, but will illustrate the conduct of uneducated people generally when attempting to look into some matter of science. They are surprised, perplexed, doubtful of the evidence of their own senses, and naturally go away dissatisfied:

Robin having been advised by a friend to get his head examined by some phrenologist, at once resolved to adopt the suggestion, and accordingly took an early opportunity of paying a visit to a celebrated lady who made a profession of giving analytical delineations of character, and was generally admitted to be pretty correct in her observations. When Robin called at her lodgings he was shown into a handsomely furnished apartment, where for some time he had no company but that of a few poets, philosophers, and criminals in stucco. At length the scientific lady entered, accompanied by a young man, who acted as her secretary. Bowing to her visitor, and waiting for a moment to give him an opportunity of stating his business—of which, however, he did not avail himself—she said: "I suppose, sir, you wish to have a chart of your phrenological developments."

"I'm no' very sure, mistress, what ye mean by that; but if it's onything about the charter, I may tell you just at ance, that I'm no' a Chartist ava. I hae brocht a guid lump o' a head here to see if you can tell me what's in't; sae, if you please, just say awa'."

The lady advanced pretty near to Robin, and, taking a close survey of his appearance, said, "You are rather of a sanguine or sanguine fibrous temperament, I see"; and, turning to her amanuensis, she directed him to put down:—"sanguine 5, fibrous 4."

"I ken," said Robin, "I hae a temper o' my ain, but I dinna see hoo I can hae nine o' them—five o' ae kind and four o' anither."

"You mistake me, sir," said the phre-

nologist; "it is *temperament*, not *temper*, that I spoke of."

"Weel, I'll be hanged if I can understand the difference."

"Your reflecting organs are less fully developed than those of the knowing and observing faculties."

"Organs! I ne'er was sae hypochondriac as to think I had onything like an organ in my head."

"What is meant by an organ in phrenology is not the musical instrument of that name, but distinct portions of the brain."

"Ou, I see; maybe what ye micht ca' whussles rather than organs."

"You are remarkably full in the basilar region."

"The ashiler region?—that should surely be something guid. I ken that what's ca'd ashiler wark in building is just the verra best. Rubble wark is what they use for gavels, back wa's, and back jams; but naething but the front is ashiler."

"You don't seem to comprehend what is meant by the basilar region."

"What does it mean, then?"

"It signifies the lower portion of the brain, and is the seat of the animal propensities."

"The animal propensities! Ye dinna mean to say that there's ony animals in my head?"

"Not *that*, but animal propensities feelings which animals possess as well as men."

"Ou ay, I see ye noo. Weel, I daursay ye're richt, for I ken I hae a guid deal o' the cuddy in me when I'm strait against the hair—but what mak' ye oot o' them?"

"Why, sir, I should say that you will be very ardent in your attachment to the fair sex, for you have amativeness large."

"Ye're aff yer eggs there, mistress; for except Jean Brown (I mean a lass that ye ken naething about) I wadna gie a smoke o' tobacco for a' the women 'twixt this and Jerusalem."

"The organ is large, however. Thomas, you may put down seventeen."

"Div ye mean to tell me to my face that I rin after seventeen o' them?"

"No, no, it is the relative size of the organ that the number denotes."

"Weel, that's just Greek and Latin to me; but ca' awa'."

"Your concentrativeness and adhesiveness are small. Thomas, you may put them down at thirteen."

"Thirteen! that's a gude pickle, I think. But I reckon there's no muckle difference about them. At least, for my pairt, I dinna see what's the use o' sae mony odds and ends in a body's head. But what's next?"

"Destructiveness. This is about the average size."

"Weel, what dae ye make oot o' that?"

"A strong feeling of resentment, and a disposition to crush opposition. Even something of cruelty will arise from this, unless checked by benevolence."

"Fegs, I hae plenty o' that; but as for cruelty, it ne'er was laid to my charge, except maybe when I was a thocht owre keen to get tryin' my hand at bluidin' horses, stickin' kye, or killin' swine. But what mair?"

"Your large destructiveness, with rather a small development of love of life,

might make you apt in a desponding moment to commit suicide."

"Me! I wadna commit suicide on a doug. Na, na, mistress; ye're clean wrang there. But what bit are ye at the noo?"

"Combativeness. Very large. You may put down eighteen, Thomas."

"Ay, what's combativeness for?"

"It inspires courage, and is the quality that makes men capable of fighting."

"Weel, I was thinkin' sae. But I jalouse guid fechtin' depends mair on big neives and braid shouthers than onything about the head. To be sure, if a body was a tup it would be different. Tups hae a desperate power in the head."

"I think ye needna mind the rest o' my head, for I reckon the sack is like the sample, and I hae heard about as muckle as I can carry awa' at ance. Just say, then, what I'm in your debt, and I'll be steppin'."

"One shilling is the charge."

"Ay, the full charge for spaein' a' the head; but ye ken ye've hardly been abune the lugs wi' me, and ye must just charge accordingly. There's saxpence in the meantime, and when I come back to get you to examine the rest o' my head anither saxpence will clear scores betwixt us."

MY PORTION.

VERY little of gold have I,
Wealth and station have passed me by,
But something sweet in my life I hold,
That I would not change for place or gold.
Beneath my feet the green earth lies,
Above my head are the tender skies,
I live between two heavens; my eyes
Look out to where, serene and sweet,
At the world's far rim the two heavens meet.

I hear the whisperings of the breeze,
That sweet, small tumult amid the trees;
And many a message comes to me
On the wing of bird, in the hum of bee,
From the mountain peak and the surging sea.
E'en silence speaks with voice so clear,
I lean my very heart to hear,

And all above me and all around
Light and darkness and sight and sound
To soul and sense such meanings bring,
I thrill with a rapturous wondering.

And I know by many a subtle sign
That the very best of life is mine.
And yet, as I spell each message o'er,
I long and long for a deeper lore;
I long to see and I long to hear
With a clearer vision, a truer ear;
And I pray with the keenest of all desire
For the lips that are touched by the altar fire.

Patience! oh, Soul! from a little field
There cometh often a gracious yield;
Who toucheth His garment's hem is healed.



CASPAR SCHWENKFELD (FROM AN OLD PRINT).

THE FOUNDER OF THE SCHWENKFELDERS.

CASPAR SCHWENKFELD, a contemporary of Martin Luther, though less familiarly known, was, like that great man, a devoted laborer in the same great cause—the Reformation. He was born at Ossing, Principality of Liegnitz, Lower Silesia, in 1490. He was educated at Cologne, and dwelt for several years at other universities where theology early attracted his attention, and the writings of the Church Fathers became his favorite study. He afterward visited many German courts, and devoted some years to the culture which, in his time, was deemed to befit his rank, qualifying himself for knighthood, and for becoming a courtier. While still a young man, he entered the service of Carl, Duke of Münsterberg, at whose court he heartily

embraced the doctrines of John Huss, which doubtless shaped his after life and labors. Bodily infirmities soon after unfitting him for knightly duties, he left the service of the Duke and became Counsellor to Frederick II., Duke of Liegnitz, whom he served in that capacity a number of years. Theology, however, had stronger attractions for him than affairs of state, and he formed the acquaintance of many theologians who were drifting in the direction of the Reformation. He withdrew from the ducal court, and was chosen a Canon of the Church. He was attracted by the preaching of Luther, after the latter had separated from the Church of Rome; and, coming to an agreement with him on the issues raised against that Church, he renounced his

Canonship, as he felt in conscience bound, and thenceforth for thirty-six years with voice and pen exhorted men to repentance and godliness.

Though naturally not inclined to controversy, he nevertheless stoutly maintained his views when controversy was inevitable, and hence he soon came to differ with the great Reformer on several doctrinal points, chief among which were those related to baptism, the eucharist, the efficacy of the Divine Word, and the human nature of Christ. Earnestly desiring harmony rather than polemic discussion, and hoping that an interchange of opinion would lead to an agreement, he sought a personal interview with Luther, and laid before him his views. They parted in friendship, but a subsequent letter in answer, closing with characteristic sharpness, proved his mission to have been fruitless.

Altogether, Schwenkfeld tended in his doctrines toward the practical rather than toward the mystical, while he placed much stress upon purity of heart and life, and less upon dogma and ceremony. He maintained that the former were greatly retarded by the then prevalent teachings of even the reformers, especially with reference to justification by faith, and the denial of free-will, and of the merit of good works. His life was one of unremitting toil. Besides preaching he carried on an extensive correspondence with men of learning and rank throughout Germany and Switzerland, and wrote many books and pamphlets, several editions of which were published—one in 1592 in four large quarto volumes.

A spirit of deep and fervent piety pervades his writings. His opponents accorded him the praise of possessing great learning combined with modesty, meekness, piety, and a loving spirit. He died in the city of Ulm, December 10, 1562, leaving a name unmarred by any charge save that of heresy, which had been raised partly on account of his distinctive doctrines, and partly in common with the other reformers.

The establishment of an independent church was never a wish of Schwenkfeld's, yet many clergymen, noblemen, and other learned and influential men in Silesia and throughout Germany embraced his views, and for a time his adherents (most of whom became such after his death) enjoyed the public ministrations of the Gospel in many of the churches, not as a distinct sect, but as a part of the Reformed Church in its larger sense. But this prosperity was short-lived. State reasons alienated the favor of the Protestant princes, and thenceforward the history of the Schwenkfelders (first so called in derision), runs parallel with that of thousands of sincere worshippers of different faiths—the Pilgrims, the Quakers, the Huguenots, and the Moravians, who yearned for freedom from the bonds of religious tyranny. Ridicule, slander, and severe persecution were heaped upon them, and coercive measures applied to force them back into a faith they abhorred. To increase the horror of the situation, they were forbidden to sell their property, or under any pretext to leave the country, and severe penalties were threatened against those who should in anywise assist their escape.

Amid all these persecutions, without churches, without organization, robbed largely of their books, they had, for over two centuries, maintained their faith and their worship in the Fatherland until 1726, when upward of one hundred and seventy families escaped at different times by night, leaving behind them all their property except what they could carry on their backs, or trundle along on wheel-barrows, and found shelter under the ruler of a Saxon province. In 1734, by the advice of friends in Holland, and of earlier emigrants, about forty families, having sought and obtained permission from the sovereign of Great Britain to settle in the American provinces, embarked and landed at Philadelphia, on the 22d of September, subscribed allegiance to George II. the next day, and observed the 24th as a day of Thanksgiving. The anniversary of this day has been

regularly kept, with religious services, by their posterity for a hundred and fifty years, and its coming the present month will witness the celebration of their Sesqui-centennial.

The Schwenkfelder immigrants settled in the southeastern counties of Pennsylvania—Philadelphia, Montgomery, Berks, and Lehigh, where their descendants, numbering probably 2,000 to 2,500, are still mainly living. They are among the most upright, peaceable, and thrifty citizens of their State; many of them resemble in character the "peace-loving

Quakers." Their literature is almost exclusively in the German language, and in that tongue are conducted about three-fourths of their religious services, though the English is gaining. Of their blood are Gen. John F. Hartranft, of Philadelphia, twice Governor of Pennsylvania; Judge Heydrick, of Venango County, and Ex-State Senator William A. Yeakle, of Montgomery County, Pa., who are not ashamed of their Schwenkfelder origin, but show their faces in grateful testimony thereto, joining in good-fellowship on Memorial-day.

S. G.

HINTS ON CHILD-TRAINING.—No. 3.

CHILDREN sometimes acquire a habit of crying if things displease them; and learn from practice that screaming produces the desired result. This is very irritating to a mother's nerves, and she frequently yields against her better judgment. That fault was corrected in a little friend of the writer's, by the mother quietly remarking, "Well, Florence, screaming won't make me alter my decision; but if you care to scream, I don't know that I object greatly, because it develops the lungs, and is healthy. As you are generally a quiet child I presume it is necessary that something should be done to expand the chest. So for that you have my permission." The noise stopped immediately. She did not care to be doing something useful while in a passion. After that, whenever the crying began, a quiet remark, "that screaming was healthy," brought silence at once. She laughs at this story at this present day, and says: "It was horrible to tell me that. No child would scream after such a remark." The mother thought so at the time.

While reasoning with a child is better, yet corporal punishment is not to be disapproved entirely. Many children are so constituted that a wholesome fear of the rod is actually necessary, but it should not be used so frequently as to lose its terrors. "Familiarity breeds contempt."

Never strike a child on the head. "Boxing the ears," as it is called, frequently produces deafness, and permanent injuries are sometimes inflicted. Life is so hard, success so difficult, that we need all the faculties unimpaired to get along; and where one has to enter life handicapped, defeat is almost certain. Mistakes, embarrassments, and great personal suffering are sure to follow. Therefore, I repeat, don't strike a child on the head with the hand, and never while in a passion.

If a child deserves punishment for an act of positive disobedience, it deserves it just as much two hours after as at the moment. The fault remains the same. It is a good plan to let the child know that the penalty for that offence is to follow, and give it time to think it over. Send it to its room and let it remain in solitude awhile. Give yourself time to cool and judge how much of the offence was deliberate and how much accidental. Thoughtlessness is not to be overlooked, but accidents happen to the best-regulated minds.

Children have as keen a sense of justice as an adult. They can't express it, but they feel it. They know when they have done wrong. After two or three hours have been passed in reflection and anticipation by the culprit, and in reasoning by the parent, then the latter can approach and say, "You know I told you

not to do this thing. You have disobeyed your mother, your loving mother, who has done so much to make you happy, worked so hard while you were playing or sleeping, sacrificed so much for you. You are ungrateful. Now you have done this wickedness (telling a lie or stealing, say). What am I to think of you? Is this the result of all my labor and teaching? A disobedient, ungrateful child. You mortify me, that I have brought up a child that is capable of descending so low; I am ashamed to be your mother. I promised you a whipping; I shall give it to you. I don't wish to do this, but you compel me to whip my own child. How cruel of you." Then let the punishment follow, short, sharp, and decisive. It is not necessary to lengthen out the agony till patience and penitence cease, and indignation arises. The child, most likely, is in a repentant mood. The mother's words have had their effect. He sees himself through her eyes, and he feels the punishment is merited. He won't rebel unless it is so brutally inflicted that nature rises in protest. A child in that mood will bear a good deal, but woe to that parent who so loses control of herself as to lose sight of reason and prudence.

As I said before, don't strike a child with the hand; a little switch of rattan is better. The reason is a philosophical one. The hand tells a great deal. It gives out of the feelings of the heart. How soothing is the mother's hand to a suffering child! How its gentle magnetism calms the disturbed, nervous system, as it glides softly and tenderly over the little form. It relieves the aching head, soothes the disturbed spirit, brings ease and comfort as it drives away pain. How often a cordial grasp of the hand gives sympathy to an aching heart! The feelings of the heart pass out through the hand as truly as the thoughts of the soul through the eyes. That being the case with the feeling of love, shall we deny that feeling of hatred or temper flows through the same channels? Strike a person in a passion and you strike passion into him. In a

minute the person is in the same state of feeling as yourself. Therefore, if a switch is used, it does not respond so readily to every feeling, and the culprit gets the benefit without the ill results. Besides that, the hand guided by passion is very heavy, more so than one could imagine till he has felt it. I once knew a lady, a well-meaning woman too, who frequently whipped her little girl with her hand. Once she playfully struck my arm. I was astonished at the weight of that small member. It made the tears start to my eyes. My heart actually melted in pity, when I thought how many times that heavy hand had descended in passion on that little trembling form. No switch in the world would do so much damage as that was capable of. It might be more painful at the moment, as it would tingle and smart, but there was small likelihood of lasting ill effects.

I know a gentleman at this present day whose father, a Methodist deacon, seemed to think that mischief and obstinacy could be pounded and knocked out of a boy. So when his parental authority was thwarted, he proceeded to knock his son down, till at length the boy's brain began to show the effects. It took years for nature to replace and build up what the father had injured. And now, at this date, he, a man of forty-five, finds that the dull, torpid feeling he suffered from as a boy, is beginning to trouble him. It will probably continue to do so till the end of life. When he was growing, nature was working in his favor; but now that he is beginning to go down the hill of life, nature has stopped building and the old injury shows itself.

One special point parents should remember: never apologize in a child's presence for a fault they have committed. Let the child apologize for itself and bear the responsibility. It is a great mistake for a parent to try to excuse or shield a child. The mortification one experiences in being obliged to face the consequences of his own acts, and the humiliation of his pride in making apol-

ogy, is a very effective and salutary lesson, and is never forgotten.

I have known a mother who, when her little son would bring home a toy or trinket that he had picked up in a neighbor's house, quietly carry it back and say nothing to the child, lest she should wound his feelings. That boy grew up to be a thief, and spent several years in a reform school. It was the mother's fault.

I knew another case, where a little fellow, only three years of age, picked up an apple that had fallen from a grocer's stand, divided it with a companion, and ate it. The mother learning the fact, talked to him of the wickedness of stealing, took the child to the grocer, made him confess his fault, and then taught him the little couplet :

" It is a sin to steal a pin,
Much more to steal a greater thing."

That treatment proved effectual. The mortification and shame were so great to his infant mind, that never again was he tempted to take a thing belonging to another. That mother was wise—she nipped the fault in the bud, and it never sprouted again. Once, when the same boy was about fourteen years old, and was occupying the position of errand-boy, in a down-town office, the proprietor thinking to test him, bought some nuts and sat eating them, occasionally saying : "Do you like nuts, Joe? Nuts are very nice at this season," but not offering any. The boy's pride was touched at what he considered shabby treatment, and on his return home, he mentioned it to his mother.

She understood the case, and giving him some money said : "Go and get a quart, sit down and eat every one of them. Fortify your stomach so that you can resist temptation. To-morrow you will feel no desire for them. He is trying to test your honesty."

He did as advised, and some of his employer's nuts lay on the desk till they were covered with dust. The boy never touched them, and the tempter was con-

vinced of his rectitude, so far as nuts were concerned.

As a child approaches maturity, the parent should try in every way to win their full confidence, especially in those little personal matters that young folks generally keep to themselves. They may feel sure of their love, but they want more than that : they should have their confidence and trust, full and unwavering.

Young girls standing

" On the brink with trembling feet,
Where womanhood and childhood meet,"

have many new and perplexing emotions. They are swayed by impulses and feelings they do not understand. Life is becoming a new revelation to them. There is an actual timidity and shamefacedness at the discovery of these new emotions. They know not what to think of themselves. They talk freely with their companions and compare notes, but they "hate to talk to mother." They feel they can't speak to her, they are ashamed.

It is a critical period in a girl's life. Mothers should then do the wooing. Talk to their girls in a confidential way ; tell them how they felt at their age ; confess the mistakes they made, and acknowledge the blunders. Let the daughters know that the mothers were, and still are, human, and can sympathize in their little tribulations. The mother should come down to the daughter's level and put herself on an equality with her. In a short time the heart and confidence of the daughter are won, and the mother's fears, if she ever had any, are gone forever.

Then comes the reward, mutual confidence and love. They are no longer mother and daughter ; they are friends, companions, sisters. Each goes to the other with all her troubles or pleasures ; asks and receives advice. Together they talk over affairs, consult ways and means, decide what is best for both, and comfort and console each other ; both willingly and gladly sacrificing self. The mother, who had done it so long, is surprised to find the daughter insisting on

being the one to yield. It is a novel feeling, and very pleasant.

Then, what pleasure they have at times, what sports and frolics, laughing like children, and enjoying themselves as much. How satisfying to know there is one true heart that is all your own; that can never change; yours forever and ever.

Happy mother, happy daughter! No fears now that when another and different love comes, mother will be shoved aside and forgotten. She can never be displaced. The new love may come, but the old will remain. She is not going to lose her daughter by marriage. She will gain a son. MRS. JOHN SIEGEL.

OUR ANGEL BOY.

HE came in morning's glow,
A bud of gracious promise fair;
He filled our home with loving light,
Sorrow had vanished with the night,
The day no dismal tokens bare—
Our hearts seem'd bless'd so.

So beautiful he came;
Were one and all put quickly by
The days of dread and weary pain;
He turned them all to precious gain;
Joy filled the mother's wistful eye,
And love's devourest flame.

He came, a comfort sweet;
Heaven's gift, our grateful hearts how blest!
To speak of loss—the thought were wild—

He could not die, our darling child!
Yet 'twas the Giver's strange behest,
Oh, little life—so fleet!

So beautiful—and now
Our boy is gone. At close of day
His cherub soul ascended where
Eternal gardens blossom fair.
Those wide, deep eyes smile far away,
The casket lieth low.

Weep not, sad mother pale:
He knoweth best,—our Lord above.
His Providence may frowning seem,
Behind the clouds His mercies gleam.
Our boy smiles in eternal love,
Beyond the starry veil.

July 25, 1884.

H. S. D.

DELIA AND BLANCHE—A PICTURE FROM LIFE.

I.

THE GERANIUM.

"OH, what a beautiful geranium!" said Delia, as she gently drew her mamma to that end of the veranda where, arranged on an elegant stand, several choice plants breathed their fragrance around; "it is full of blossom. I wish it were mine. What an ornament it would be to the window of my room!"

"And if you did possess it, my dear, how many days would it retain its beauty? These things require constant care, and to be regularly watered; one or two days of forgetfulness—for which I have so often to reprove you—and it is destroyed."

"Indeed, indeed, mamma, I will attend to it most carefully; this once, at least, you shall see that I will not merit reproof."

"You shall then possess it, my love; but remember your promise."

With a glowing cheek and light heart Delia took the plant. She carried it to her room, and placed it in the recess of a little gothic window. Every morning she visited it, watered it, looked over every leaf to see that no insect might lurk to destroy its beauty, and carefully plucked every withered leaf. She placed it under shade from the intensity of the sun, and at night cautiously took it in, lest a sudden breeze should break or discompose its lovely branches.

"My Delia has then been true to her promise," said Mrs. Provost, when she visited her daughter's room; and she had all that time every reason for the encouragement of such an opinion. But temptation had not yet put Delia's constancy to a test.

On the week following, her aunt arrived. She came to pass the autumn, and brought Delia, among other toys and articles of amusement, a very beautiful wax doll.

Delia received it with much pleasure. Every piece of satin, lace, or cambric was instantly put in requisition, and her mamma's advice and assistance called in aid for the preparation of its wardrobe; and "Miss Diana," for that was the name she gave her new waxen baby, was speedily and elegantly attired.

For nearly a week, from the time of her rising in the morning until the hour of repose, only deducting the regular hours for lessons and her evening walk, Delia was constantly employed with her new treasure. The geranium was forgotten. In vain did its improving and flourishing beauty appear to call her attention as she tripped past it; the doll alone—its frocks, slips, petticoats, bonnets, caps, and polonaises—filled every thought and occupied every moment.

No morning came but it was carefully dressed; no evening arrived that she did not undress it and lay it cautiously in its cradle; while the geranium, unattended, unwatered, and neglected, gradually faded, and its beautiful, green-velvet leaves became parched and withered.

"And the geranium, Delia?" said Mrs. Provost, impressively, when her daughter went, as usual, to receive her caress previously to retiring for repose,—*"the geranium?"*

Delia started. She ran to the gothic window; the geranium had withered, and dry branches and scattered leaves were all that remained!

Delia's heart swelled with remorse and self-reproach; she threw herself on the sofa, and, covering her face with her frock, wept bitterly.

"Well, Delia," said her mamma, "what have you to say for the entire disregard of the promise you made me? Had you not entreated me to present you with this once beautiful plant, it would still have been beautiful. Remember with what ardor you requested it; yet your

aunt no sooner presented you with a doll than it became an object of complete indifference—neglected, and, by that neglect, destroyed! Remember, Delia, a variable character can never be respectable; it renders its possessor at once contemptible to those around them and a misery to themselves. Yet to this you have added falsehood."

"Indeed, mamma," sobbed Delia, "I am sincerely sorry; forgive me, and I will never"—

"Pause, my child, and reflect on what you are going to say. Let it be, rather, that you will endeavor to avoid offending in future. Had you not promised as earnestly that you would, at least in this one instance, not deserve reproof, you would have avoided the falsehood which will deprive you of my esteem until I have some excellent reason for restoring it again to you."

So saying, Mrs. Provost left her daughter to her tears and to reflections of a nature by no means pleasing. And when Delia pressed her pillow that night, she formed many a plan for a change of character and the regaining of her mamma's esteem and affection.

II.

THE GAZELLE.

"What is that which lies on the lawn?" said Mrs. Provost, as she stood at the drawing-room window, to the gardener, who was arranging some shrubs; "it appears to me like a white cambric handkerchief which the rain has drenched and soiled."

The article in question was brought.

"It is a doll's frock—Miss Delia's, madam," said the gardener.

"And where is your doll?" said Mrs. Provost, when Delia came at her call.

Delia blushed deeply. The question was repeated.

"Mamma, its arm is broken."

"Fetch it to me."

The doll was brought. Its prettily-turned arm had been crushed by some

heavy article having been placed upon it; and the same accident had flattened the nose and broken in part of the neck.

"How has this occurred?"

"Mamma, it was lying on the sofa in my room; I went hastily to fetch some shells to go on with the grotto, and forgetting it was there, I stood my little cabinet on it and crushed it."

"Ah, Delia, Delia! The geranium neglected for the doll; the doll forgotten for the grotto! Who can depend upon so fickle a nature?"

"I think," continued Mrs. Provost, "that the sum which your aunt laid out on this toy for your gratification was about ten dollars, and at least three dollars have been expended in its dress—this makes thirteen dollars. And all this has been worse than thrown away upon a thoughtless, careless little girl who never dreams how many poor, hungry children it might have fed; how many sinking hearts it might have cheered among the many sufferers who are now pining in want and sorrow! Do you remember, Delia, the hut we visited together? Well, the sum you have thus disgracefully wasted would have supported the whole of that numerous family for more than a fortnight!"

Delia sank on her knees; she hid her face in her mamma's lap and wept aloud; but she dared not promise, for she felt that she did not deserve her mother's confidence.

The last arch of the grotto was commenced, when it was thrown aside, for a beautiful tame gazelle was presented to her by her papa.

Delia was delighted; but as she placed her hand on its neck, she glanced at her mamma, who bent upon her a penetrating look of mingled inquiry and reproof.

"No, dear papa, I can not accept it."

"And why, Delia?"

"Because I am afraid."

"Of what, Delia?" said her mother; "assuredly not that you shall neglect it! Take it, my girl, and give us a proof to the contrary."

Delia took the riband attached to the

little ornamental collar which was round its neck. She patted, she caressed it she formed the best of resolutions; fed it constantly; gave it fresh hay for its bed, and was delighted to play with it on the lawn, or to see it run after her through the grove, and drink at the fountain.

Some months—yes, months elapsed—a long time for Delia to be interested in the same object. Her mamma was pleased, and hoped that Delia was acquiring a good degree of steadiness.

It was a lovely spring; every tree put forth its blossom, and the little woodland choristers again warbled from their branches. Delia's beloved companion, her chosen friend, her Blanche, came to pass some weeks with her. This would be a festival, indeed, for there was no one she loved so well. A beautiful pleasure-boat gliding over the broad, clear pond, and many hours of diversion and recreation were passed therein by the young friends. Delia was all animation, for the boat was a novelty; it was painted and gilded, with cushioned seats, and a canopy.

"Did you not hear a moan?" said Blanche, laying her pretty white hand on Delia's arm, as they were tripping past the little outbuilding which Delia had chosen for her gazelle's nightly habitation; "did you not hear a moan, Delia?"

Delia started. She felt in her reticule for the key; it was not there.

"Julia, fetch the key from the dressing-table."

Julia returned: "It is not there, Miss."

"It must be on the window-sill of my room, then," said Delia.

"No," replied Blanche, "I should have seen it there this morning."

Julia ran to the room, the moans becoming fainter.

Delia stamped her feet in agony. "Oh! my poor Fidele; for more than four days he has never once entered my imagination!"

"Indeed!" said Blanche, turning pale, "can that really be true? My dear girl, how could you be so thoughtless?"

Poor Fidele—her papa's welcome present, her once-cherished favorite, her

little playmate—lay panting and expiring; its innocent eye turned up to her face, seemed to say, "How could you be so cruel as thus to forget me?" She leaned over him in agony; her tears fell upon him; he licked her hand and expired!

Delia became gloomy and cheerless; in vain did the soothing voice of Blanche seek to console her; in vain did she offer gentle advice for the future. She dreaded her mamma's investigating glance, her papa's inquiry; their presence, formerly so delightful, was now irksome to her.

Delia possessed all that favoring fortune could bestow to render her happy; no comfort was wanting, no wish left ungratified; yet from the vacillation of her nature, she became at once miserable and the object of contempt and reprobation. Had she taken Blanche's good advice, and formed a steady resolution to alter her conduct, she might yet have been happy; but Delia was too much averse to endeavor.

Blanche was naturally fond of study; she already began to excel on the piano; her drawings were tasteful and correct. An intelligent and indulgent father had supplied the means for making her education as complete as her heart was affectionate and amiable and her person lovely.

Delia both loved and admired Blanche; she would fain have imitated her, but she had not sufficient decision to pursue any of those branches in which she could have excelled long enough to acquire proficiency. Her embroidery was thrown aside for drawing, and she began to guide the pencil with some degree of success when she fancied she would like to apply herself for a time wholly to music; then, after a few days, her piano was neglected for the guitar, and that, ultimately, for some other incitement of variety.

As Delia's years matured, her errors strengthened, and although her parents secured her a wealthy alliance, yet she was not happy. Delia had an elegant establishment—her table was covered with delicacies; her wardrobe was expensive and superb; while thousands around her

were perishing with cold and hunger. She had the means of rendering many such beings happy, and that without sacrificing a trifle from the luxuries she enjoyed.

She did, indeed, sometimes think that she should not dislike to become a benefactress, and be spoken of as highly benevolent; but something always happened to prevent carrying this good intention into effect. And without one hour of true self-consciousness, or one sincere companion, Delia still continued to vegetate amid the luxuries surrounding her.

MRS. EMILY LOMER.

(To be continued.)

THE TEST OF FITNESS.

DEEPLY learned, fresh from school,
Comes my all-accomplished daughter!
Newly freed from bookish rule,
Say, what wisdom have they taught her?
'Ologies I care not for,
Mystic science, classic lore,
So she be but skilled enough in
Homely arts to bake my muffin.

Knows she, as her mother knew,
Recipes and quaint directions:
How to bake, to boil, to stew
Dainty foods and nice confections?
Or, as others of her sex,
Born and nurtured but to vex,
Scarcely knows she of such stuff in
Nature as unbaked muffin?

Have they trained her to pursue
Pastimes merely ornamental?
And, with princely retinue,
To expend a Rothschild's rental?
Can she nothing do but dance,
Paint on china, dream romance?
Well, perhaps I grow too rough in
Expectation of my muffin.

Come then, pretty maid, at once
Prove my jealous fears unfounded.
Make me own myself the dunce,
All my gibes on envy grounded,
Yet, one warning word believe,
Mind of man can naught conceive
So unconquerably tough, in
Human ken, as half-cooked muffin.

A DYSPEPTIC.



THE MIND CURE.

THE growth of belief in mind and faith cures is something phenomenal, and with it is signalized the rise of a new school of medicine whose strength is far from realized by physicians of the drug schools. To be sure, every cultured practitioner is ready to admit the importance of mental condition in the treatment of disease; but not one in a hundred is willing to admit that persons suffering from acute and chronic disease may be cured by a state of the mind, and without any assistance of the prescriber. There are dozens of people, men and women, who practice the mind cure some of them having attained considerable eminence for success; but the system practiced is not easy of explanation—perhaps can not be extricated altogether from the domain of mystery. A writer in the *Boston Journal* has devoted two or three columns to the subject, and endeavors to enlighten the readers of that newspaper with regard to its nature. He says:

“Even those who have studied it longest admit that they do not comprehend its full force, and are unable to describe the exact method of the healing process. The process is essentially a spiritual work. It is held that there is a part of us that is never sick, and this part is mentally worked upon so as to control the sick person’s consciousness, and this destroys the sickness, for ‘mind cures matter.’ A disciple of this school is sick—no, he

is not sick, for that is something which he will not admit; he has a belief that he is sick; he then says mentally to the rebellious body, ‘What are you? You have no power over me; you are merely the covering given to me for present purposes; it is an error to suppose that I am sick; I recognize the great truth that I myself, my individuality, my personality, my mind, can not be sick, for it is immortal, made in the image of God, and when I recognize the existence of that truth there is no room left for the existence of error; it is unequivocally proved that two things can not occupy one and the same place; error can not exist in the same place with truth, therefore error is not in existence, and I am therefore not sick.’ And the mind thus utterly ignoring the existence of error, of sickness, keeps matter in a state of health. It is not similar to will power, for will power admits the existence of sickness, but drives it away by the superior force of the will, while the mind cure denies the existence of sickness, and instead of conquering merely ignores it entirely. It is not similar to faith cure, for faith relies on the action of an outside power, the God-power, while the mind cure relies entirely on the power, or more properly speaking healthfulness, of the individual’s own mind.

“Many and remarkable cures are said to have been performed by this mental healing process. The practitioners them-

selves say little about them; they are reticent to an unusual degree on this matter except when talking to their own followers, and declare that they do not wish to advertise the doctrine in any way. Their patients, however, tell marvellous stories. One young girl, for instance, had been sick for twelve years, unable to leave her room; a lady mind practitioner treated the girl, and in a short time she was able to go out, and now is apparently in the best of health. Another lady, who is only a student in the doctrine, suffered for years with the severest rheumatism. She became convinced of the truth that mind rules matter, and declaring to herself, 'I have no rheumatism; I have only believed that I had rheumatism; how can I, my immortal self, be ill, that is, be in error? I am not sick,' convinced herself that she did not have rheumatism, and since then has not suffered the least. This case, like many others, is one in which there is no motive for telling anything except the truth, as the self-curer is not engaged in the practice of mental healing, and is moreover a lady highly esteemed in the social circle where she moves. At Quincy Market are a number of market-men who willingly testify as to the results of this treatment. One man said: 'I suffered for weeks with the most acute rheumatism, and any one who has had that knows how painful it is; I put myself under the mind doctor's treatment and he cured me completely.'

"The cures are not confined to such light cases as transitory pains, but are claimed to effect contagious and hereditary diseases as well, in fact every kind of ill to which mortal man is susceptible. One patient had a limb so diseased that it had turned black; three doctors were consulted, and decided that it must be cut off, but a mind doctor held otherwise, and after a longer treatment than usual, for the case was severe, brought the limb back to its perfect condition. In Charlestown resides a gentleman whose eyes were covered with cataracts, and who had been told by one of the most emi-

nent eye-doctors of this city that he would be blind, that nothing could help him. The patient went to a mind doctor—at that time being so blind that he could not read the signs on the streets through which he passed—and in a few weeks both cataracts had disappeared. Another lady in Medford, after a treatment of 125 sittings, was relieved of an even worse blindness; the cataracts gradually disappeared, and life returned to the eye. Cases of diphtheria, ulceration of the brain, cancer, asthma, indigestion, congestion of the brain, fever, were cured by the influence of the mind. In many of these cases the patient had been given up by the doctors of the regular school; in fact, it was a common saying of Dr. Quimby, the founder of the mind school, that people would send for him and the undertaker at the same time, and the one who got there first would have the case.

"The method of treatment is a simple one, and likely to try the faith of the patient to the utmost. It consists in sitting quiet and doing nothing. The practitioner faces the person who believes himself sick, for about half an hour, silently communing in his own mind the same as he would do in case he himself was supposed to be ill, or else explaining to the patient what the truth really is in regard to his disease. This is all that is necessary. Sometimes a harmless, outward application is made, merely to give the patient confidence, since the test of belief is hard when nothing is apparently done; but this has no bearing upon the method of curing.

"In Boston there are four schools of this system, and all of these hold as their fundamental idea that disease does not come from God, and that He has nothing to do with its perpetuation, but that it is one of the errors of man which can be cured by truth; the application of this truth is not by faith, but by an intelligent understanding. The schools, however, disagree in regard to later developments, some claiming to be further advanced than the others."

TRICHINOSIS.—No 2.

It is believed that intestinal trichinæ not only deposit their young in the alimentary canal, but that the latter spread to and through the connective tissue. It happens, also, that a single embryo may pass by means of the blood currents into the muscles. The size and appearance of the embryos remain unchanged during migration, and the first change is observed after the worm has reached the fasciculi, and then taking on a condition of repose. The fasciculus, which is generally occupied by the parasite, is not left to conjecture, as some em-

the entrance upon complete rest, such rapid growth that the worm will, in the time of ten to twelve days, become a fully formed and matured muscle trichina.

As soon as the internal organs are formed, the worm increases in length rather than in breadth, and assumes a slender appearance, at the same time becoming bent and curved, and finally going into the irregular spiral position. By the microscope can now be seen the difference of the sexual organs in the male and female.

During migration the trichinæ may be



Fig. 21.—FULLY DEVELOPED WORM—FEMALE (MAGNIFIED).

bryos are always seen in the fibres, and we are enabled to follow them step by step through the changes they undergo, until they reach their full development as muscle trichinæ.

The nuclei of the capillary vessels also change to some extent through distribution of the inflammatory products. The blood-vessels are enlarged and elongated, taking a circoid form as the embryo eats its way through the fasciculus.

It is known that the oval corpuscles, or muscle nuclei, may contain deposits of

seen in all stages from those just arrived in the tissues to those measuring 0.7 *m.m.* in length and completely coiled. In these cases generally the slender end of the worm is more closely coiled than the posterior part generally as it lies in the periphery of the coil (Fig. 22).

On the thirty-third day after infection, the trichina lies in a tubular sheath that contains the parasite and granular matter with the oval muscle nuclei. The cavity may be long and slender, or short and



Fig. 22.—FIRST TRACE OF CAPSULE.

excrement. This is supposed to be due to the parasites retaining their previous activity; but the same thing occurs with the cestoides and other helminths after reaching their future resting-place where they fall into a condition of repose for the growth of the body and differentiation of the organs. Now begins, with

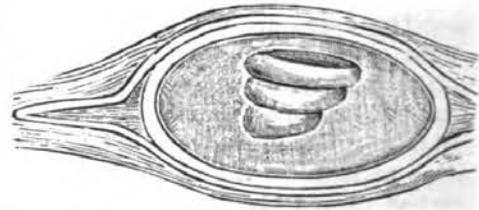


Fig. 23.—ENCAPSULATED TRICHINA—ADVANCED STATE.

thick, and granular substance may fill the whole space as is seen in Fig. 22.

In other cases, sometimes, the tubular cavity is to be seen with a well-defined constriction at either end, and has only scattered masses throughout the tube;

this constriction is the first trace of the capsule, or it consists of a deposit of clear substance in the inside of the sheath in the form of an ellipse, as seen in Fig. 23. The first trace of the capsule of the muscle trichina is produced by a peripheral

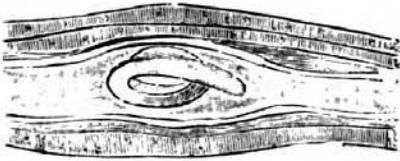


Fig. 24.—PIECE OF MUSCLE WITH TRICHINA.

consolidation of the contents of the altered sarcolemma sheath.

In forty to fifty days the trichinæ lie in a clear space of about 0.4 to 0.5 *m.m.* long, and are inclosed at the extremities, and having a clearly defined outline, the tubular portion of the sheath disappears, and in its place is seen only a line of connective tissues, rich in granules, abutting against the end of the connective tissue inclosure; but without a knowledge of the previous condition nothing abnormal would be suspected (Fig. 23).

Fig. 24 shows the encapsulated trichina, the sarcolemma sheath, and the cell proliferation, after the injection of acetic or picric acid into the connective tissue envelope, and in Fig. 25 we have a view of the rich network of capillary blood-vessels which proceed from the small proliferative cell, as will be seen in the primary formation of new connective tissue, each pole having an independent vascular sys-

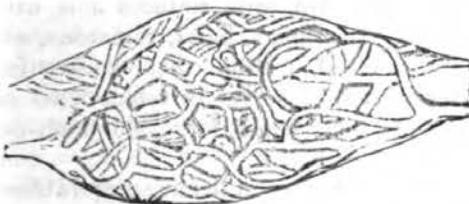


Fig. 25.—NETWORK OF CAPILLARY VESSELS (MAGNIFIED)

tem with afferent and efferent vessels, which connect with the muscle capillaries.

Traces of calcification may be seen in a hog four months after infection, but by

close observation capsules with primary calcifications have been seen on the eighty-fifth day. After this time there is a marked difference in the degree of calcification, some of the cysts being completely opaque, some transparent and having a deposit only at the poles.

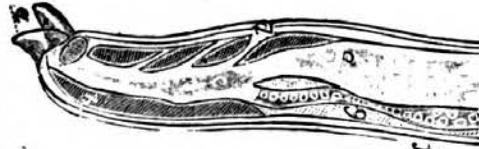


Fig. 26.—POSTERIOR EXTREMITY, SHOWING ORGANS.

On the twenty-sixth day the muscle trichinæ are about one-half their full size; some of the embryos, however, are not capable of development to muscle trichinæ.

In about a year, should the patient survive till then, the capsules can be seen with the naked eye; they will then look like small white spots in the red muscle. This appearance is due to the deposit of lime salts. Under the microscope with a low power, from 12 to 20 diameters, these spots are found to be cysts, oval or spheroidal in form, with the long axis in the direction of the fasciculi, in which a small round worm is coiled up, the outline being distinct according to the degree of calcification (Fig. 23).

The size of the capsules then can be seen at about a diameter of 0.2 *m.m.* to 0.4 *m.m.* There is also a difference in length of from 0.3 *m.m.* to 0.8 *m.m.*; the average may be taken, let us say, at about

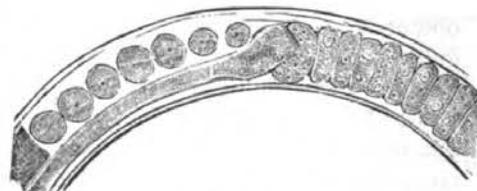


Fig. 27.—PART OF FEMALE, SHOWING OVA (MAGNIFIED).

0.4 *m.m.* for length, and about .26 *m.m.* in breadth.

It sometimes occurs that the capsule contains more than one worm—two, three, four, and even five worms have

been observed in the same cyst, and it is more or less developed, according to the number of trichinæ.

At the posterior extremity (Fig. 26) will be seen a small opening with the chitin. This posterior extremity of the intestine differs but a little from the stomach, and the external muscle-like wall is lined by a narrow tube of chitin, which is continuous throughout. These worms can be washed out from specimens of muscles with pure uric acid.

SYMPTOMS.

According to Dr. Dalton the sufferer from trichinosis experiences more or less irritation of the intestines within ten days after eating the infected flesh. As a rule, the greater the irritation the more

favorable the prospects for him, because it may produce frequent evacuations that will carry off the parasites. But if the irritation is moderate, and the young animals have time to penetrate the intestinal walls and make their way to the muscular tissue, then is set up the inflammatory stage, the most dangerous of the disease. This is accompanied with general pain and soreness, swelling and typhoidal symptoms. The patient becomes very weak, with a rapid pulse, dry, hot skin, lips, and tongue. In this stage death may ensue in six days or six weeks, or, as we have intimated, the parasites, after reaching the muscles, may become encysted, the painful feelings disappear, and the patient apparently recovers from the disease.

RESOURCES OF HYGIENIC DIET.

WHEN hygienists speak of having an elaborate bill of fare from which to choose what they may eat, the flesh-eaters laugh cynically, as if to leave their traditional beef, mutton, and pork were to be launched upon an ocean of uncertain speculation with regard to one's diet. On this point a correspondent of the *New York Tribune* has something to say that shows in a manner the large resources of the reform diet. He writes in a vein of discretion that should win general favor when he says:

"In food, as in medicine, new prescriptions are offered and old advice discarded constantly; and this is unavoidable while the science of human life is involved in obscurity, and empiricism is our only guide. Probably we err in jumping to conclusions too readily, and trying to make a test of individual experience, or that of nations, allowing too little for modifying circumstances. Rules for diet, therefore, may properly be dispensed with much diffidence, knowing how readily they may be controverted. The effort to reach the best physical condition and conform to the highest authority is creditable; and we do well to notice what seems to agree with us best, what gives us most

buoyancy and strength, though it serves only as a rule for ourselves, not for others.

"But one can live well on vegetables, and set a beautiful and appetizing table. Vegetarianism implies abstinence from flesh and blood, leaving us milk, cream eggs, with all the fruit and vegetable abundance that our seasons produce. From spring until late in fall we can have substantial food from our own gardens, as potatoes in variety, early and late pease, beans of various kinds, corn of several sorts with all the dishes made of it; and all through these months we can have relishes in greens, spinach, dandelions, mustard, with lettuces and other salads, cucumbers, beets, tomatoes, etc., etc. Indeed, I think that housewife a very unskilled server of tables who can not make her family forget the flesh-pots during this period.

"In winter we still have vegetables if we raise them and put them in the cellar, while the dried beans, pease, and corn, the canned goods, with foreign-grown vegetables, and luscious fruits from tropical climes, abundant in our markets, all serve to increase our supply and make variety on our tables. All through the

year we have the breakfast cereals—steam-cooked white oats, shredded maize, and prepared wheat—diminishing labor and improving the bill of fare. We are told of more than twenty ways of cooking eggs, and the combination dishes of vegetables and fruit with milk, cream, and eggs are almost numberless. There is plenty to eat, and good eating too, if one wishes to abstain from flesh and blood; to abjure the slaughter of animals and avoid the effect of their diseases.

“One of the essentials in the experiment is not only good, but delicate cooking. No matter what the food may be, a

want of attention or a want of knowledge may spoil it. Many a woman, however, is blamed for poor cooking, when the fault is entirely in the supplies. Whether vegetarians or not, we do well to have vegetables early and late, and of the best kinds, to give variety to our tables, and help us to avoid the excessive use of a concentrated and animalized diet, which, I fancy, will hardly be shown to be good for us. Dr. Andrew Combe thought ‘all that can be sensibly said in regard to diet relates to quality and quantity—the quality should be plain, the quantity moderate.’”

SENSE-PERCEPTION IN BLACK RACES.

SOME very curious physiological facts bearing upon the presence or absence of white colors in the higher animals have lately been adduced by Dr. Ogle. It has been found that a colored or dark pigment in the olfactory regions of the nostrils appears to be essential to perfect smell, and this pigment is rarely deficient except when the whole animal is pure white. In these cases the creature is almost without smell or taste. This, Dr. Ogle believes, explains the curious case of the pigs in Virginia adduced by Mr. Darwin, white pigs being poisoned by a poisonous root which does not affect black pigs. Mr. Darwin imputed this to a constitutional difference accompanying the dark color, which rendered what was poisonous to the white-colored animals quite innocuous to the black. Dr. Ogle, however, observes, that there is no proof that the black pigs eat the root, and he believes the more probable explanation to be that it is distasteful to them, while the white pigs, being deficient in smell and taste, eat it and are killed. Analogous facts occur in several distinct families. White sheep are killed in the Tarentino by eating *Hypericum criscum*, while black sheep escape; white rhinoceroses are said to perish from eating *Euphorbia candelabrum*; and white horses are said to suffer from poisonous food where colored ones escape. Now, it is

very improbable that a constitutional immunity from poisoning by so many distinct plants should, in the case of such widely different animals, be always correlated with the same difference of color; but the facts are readily understood, if the senses of smell and taste are dependent on the presence of a pigment which is deficient in wholly white animals. The explanation has, however, been carried a step further, by experiments showing that the absorption of odors by dead matter, such as clothing, is greatly affected by color, black being the most powerful absorbent, then blue, red, yellow, and lastly white. We have here a physical cause for the sense-inferiority of totally white animals, which may account for their rarity in nature. For few, if any, wild animals are wholly white. The head, the face, or at least the muzzle or the nose (as in deer), are generally black. The ears and eyes are also often black; and there is reason to believe that dark pigment is essential to good hearing, as it certainly is to perfect vision. We can therefore understand why white cats with blue eyes are so often deaf—a peculiarity we notice more readily than their deficiency of smell or taste.

If, then, the prevalence of white coloration is generally accompanied with some deficiency in the acuteness of the most important senses, this color becomes

doubly dangerous, for it not only renders its possessor more conspicuous to its enemies, but at the same time makes it less ready in detecting the presence of danger. Hence, perhaps, the reason why white appears more frequently in islands where competition is less severe and enemies less numerous and varied. Hence, also, a reason why *albinoism*, although freely occurring in captivity, never maintains itself in a wild state, while *melanism* does. The peculiarity of some islands in having all their inhabitants of dusky colors—as the Galapagos—may also perhaps be explained on the same principles, for poisonous fruit or seeds may there abound which weed out all white or light-colored varieties, owing to their deficiency of smell and taste. We can hardly believe, however, that this would apply to white-colored butterflies, and this may be a reason why the effect of an insular habitat is more marked in these insects than in birds or mammals. But though inapplicable to the lower ani-

mals, this curious relation of sense-acuteness with colors, may have had some influence on the development of the higher human races. If light tints of the skin were generally accompanied by some deficiency in the senses of smell, hearing, and vision, the white could never compete with the darker races, so long as man was in a very low or savage condition, and wholly dependent for existence on the acuteness of his senses. But as the mental faculties became more fully developed, and more important to his welfare than mere sense-acuteness, the lighter tints of skin, and hair, and eyes would cease to be disadvantageous whenever they were accompanied by superior brain-power. Such variations would then be preserved; and thus may have arisen the Xanthochroic race of mankind, in which we find a high development of intellect, accompanied by a slight deficiency in the acuteness of the senses as compared with the darker forms.

A. R. WALLACE.

WHY CONTAGIOUS DISEASES ATTACK BUT ONCE.

PROFESSOR TYNDALL thus endeavors to explain the immunity obtained against a second attack of a contagious disease: "One of the most extraordinary and unaccountable experiences in medicine was the immunity secured by a single attack of a communicable disease against future attacks of the same malady. Smallpox, typhoid, or scarlatina, for example, was found as a general rule to occur only once in a lifetime of the individual, the successful passage through the disorder apparently rendering the body invulnerable. Reasoning from analogy, I have ventured to express the opinion that the rarity of second attacks of communicable disease was due to the removal from the system, by the first parasitic crop, of some ingredient necessary to the growth and propagation of the parasite.

"The cultivation of micro-organisms which is now everywhere carried on, enables us to realize the smallness of the change which in many cases suffices to

convert a highly nutritive liquid into one incapable of supporting microscopic life. Various important essays bearing upon this subject have been recently published in the *Revue Scientifique*. M. Bouley there draws attention to the results obtained by M. Raulin in the cultivation of the microscopic plant named *Aspergillus niger*. The omission of potash from Raulin's liquid suffices to make the produce fall to one-twenty-fifth of the amount collected when potash is present. The addition of an infinitesimal amount of a substance inimical to the life of a plant is attended with still more striking results. For example, one part in sixteen hundred thousand of nitrate of silver added to the liquid entirely stops the growth of the plant. And now we come to the important application of this fact, which has been indicated by M. Duclaux. Supposing the *Aspergillus* to be a human parasite—a living contagium—capable of self-multiplication in the human blood, and

of so altering the constitution of that liquid as to produce death, then the introduction into the blood of a man weighing sixty kilogrammes of five milligrammes of the nitrate of silver would insure, if not the total effacement of this contagium, at all events the neutralization of its power to destroy life. An index finger here points out to us the direction which physiological experiment is likely to take in the future. In anticipation of the assault of infective organ-

isms, the experimenter will try to introduce into the body substances which, though small in amount, shall so affect the blood and tissues as to render them unfit for the development of the contagium. And subsequent to the assault of the parasite he will seek to introduce substances which shall effectually stop its multiplication. There are the strongest grounds for hope that in the case of infective diseases generally such protective substance will be found."

MODERATE DRINKING.

THE moderate drinker is found in the most intelligent and influential walks of society, and his voice and example operate most powerfully against the warnings of the temperance advocate in their influence upon the masses. When, however, men of commanding eminence in medical science speak, their opinions should be widely respected. A letter of Sir Henry Thompson to the Dean of Canterbury on moderate drinking, should be read especially by the class above mentioned. He says:

"I have long had the conviction that there is no greater cause of evil, moral and physical, in this country, than the use of alcoholic beverages. I do not mean by this that extreme indulgence which produces drunkenness. The habitual use of fermented liquors to an extent far short of what is necessary to produce that condition, and such as is quite common in all ranks of society, injures the body and diminishes the mental power to an extent which I think few people are aware of. Such, at all events, is the result of observation during more than twenty years of professional life, devoted to hospital practice, and to private practice in every rank above it. Thus I have no hesitation in attributing a very large proportion of some of the most painful and dangerous maladies which come under my notice, as well as those which every medical man has to treat, to the ordinary and daily use of fermented drink, taken in the quantity which is

conventionally deemed moderate. Whatever may be said in regard to its evil influence on the mental and moral faculties, as to the fact above stated I feel that I have a right to speak with authority; and I do so solely because it appears to me a duty, especially at this moment, not to be silent on a matter of such extreme importance. I know full well how unpalatable is such a truth, and how such a declaration brings me into painful conflict, I had almost said, with the national sentiments and the time-honored usages of our race. My main object is to express my opinion as a professional man in relation to the habitual employment of fermented liquor as a beverage. But if I ventured one step further it would be to express a belief that there is no single habit in this country which so much tends to deteriorate the qualities of the race, and so much disqualifies it for endurance in that competition which in the nature of things must exist, and in which struggle the prize of superiority must fall to the best and to the strongest."

HOW TO MAKE A BED.—We are inclined to think that few people really know how to make a bed properly, or they are too much in a hurry to put things to rights in a chamber to be thorough. A writer in a Philadelphia paper ventures the following practical remarks on the subject:

"Let every bed-maker, as soon as all the covers are spread, turn down the upper sheet and all above it, leaving a generous margin below the bolster. Some people, you know, pull all the covers straight up to the top and lay the bolster upon them, so that when bed-time comes they must be arranged at the head. Boys don't like this way, and perhaps some other folks don't either. It is the custom to pile two big, square pillows on the top of the bolster, and then put on two pillow-shams, and then, sometimes, or perhaps before the pillow-shams, a sheet-sham. This is setting a trap for the unwary. Only a remarkably careful woman

is equal to the task of getting off all the 'finery' properly. Why not almost, if not altogether, abolish shams of all kinds? Why not honestly take off the big, square pillows and supply every bed with a comfortable bolster to take the place of pillows? If you like adornment, embroider or decorate the slips and sheets themselves without any make-believe. Silk, lace, and the like seem out of place on a bed, which should suggest repose. Imagine a big boy with boots on flinging himself into the midst of a fairy creation of pink satin and torchon! Let beds be what they look like, and let them look like what they are—real resting-places."

A CHILD PRODIGY.

THE accompanying engraving is a portrait of a boy only seven years of age, who has attracted no little attention in the town of Maywood, Mo., where his parents, whose name is Brennan, reside, on account of his remarkable precocity. The head as shown in the engraving, and much more clearly in the excellent pho-



tograph sent us, is above the average size and finely developed, the forehead and top-head being specially marked by fullness of growth. Dr. Bruse, of Maywood, has brought the child to our notice by letters of recent date, in which he speaks in very high terms of the little fellow, and predicts for him a great future, provided that his training is judicious and adapted to the harmonious development of his great original gifts. He describes

him as cool and deliberate in all circumstances, showing the judgment of a man. His head is very wide in the region of Constructiveness, Ideality, and Sublimity; his reasoning faculties are large, and the perceptive development well indicated. He weighs fifty-three pounds, while his head is twenty-one and a half inches in circumference—very extraordinary for a mere child as he is. In answer to our inquiry, Dr. Bruse states that both his parents have remarkably good physical development, and are contrasts in temperament and organization, the mother being of the nervous-bilious type, with large Causality and Constructiveness, and generally well balanced, not only in the brain, but in all the physical parts of the body. She is of German parentage. The father is of Irish parentage and possesses all the lively characteristics of his race. He is of vital temperament, and possesses a fairly balanced intellect—is an excellent business man, having charge of a large concern in Maywood. Such a boy needs careful, intelligent management, otherwise his precocity may prove ruinous to both brain and body, through exhausting activity. He needs no stimulus, but rather steady restraint, and a well-ordered system of physical training, so that his body may be rendered vigorous and enduring.

HOW TO AVOID COLDS.

AN eminent London physician, Dr. Graham, is reported as having said some good things on the subject of colds, and which are in the main accordant with rational and hygienic views. For instance :

"It is not a correct practice, after a cold is caught, to make the room a person sits in much warmer than usual, to increase the quantity of bed-clothes, wrap up in flannel, and drink a large quantity of hot tea, gruel, or other slops, because it will invariably increase the feverishness, and in the majority of instances, prolong, rather than lessen, the duration of the cold. It is well known that confining inoculated persons in warm rooms will make their small-pox more violent by augmenting the general heat and fever; and it is for the same reason that a similar practice in the present complaint is attended with analogous results, a cold being in reality a slight fever. In some parts of England, among the lower order of the people, a large glass of cold spring water, taken on going to bed, is found to be a successful remedy, and, in fact, many medical practitioners recommend a reduced atmosphere, and frequent draughts of cold fluid, as the most efficacious remedy for a recent cold, particularly when the patient's habit is full and plethoric."

Dr. Graham further says :

"It is generally supposed that it is the exposure to a cold or wet atmosphere which produces the effect called cold, whereas it is returning to a warm temperature after exposure, which is the real cause of the evil. When a person in the cold weather goes into the open air, every time he draws his breath the cold air passes through his nostrils and windpipe, into the lungs, and consequently diminishes the heat of these parts. As long as a person continues in the cold air, he feels no bad effects from it; but as soon as he returns home, he approaches the fire to warm himself, and very often takes some warm and comfortable drink to keep out the cold, it is said. The inevitable con-

sequence is that he will find he has taken cold. He feels a shivering which makes him draw nearer the fire, but all to no purpose; the more he tries to heat himself, the more he chills. All the mischief is here caused by the violent action of the heat.

"To avoid this, when you come out of a very cold atmosphere, you should not at first go into a room that has a fire in it, or, if you can not avoid that, you should keep for a considerable time at as great a distance as possible, and, above all, refrain from taking warm or strong liquors when you are cold. This rule is founded on the same principle as the treatment of any part of the body when frost-bitten. If it were brought to the fire it would soon mortify, whereas, if rubbed with snow, no bad consequences follow from it. Hence, if the following rule were strictly observed—when the whole body, or any part of it, is chilled, bring it to its natural feeling and warmth by degrees—the frequent colds we experience in winter would, in a great measure, be prevented."

— . . . —

A MIGRATORY NEEDLE.—A Chicago newspaper publishes the following extraordinary account of the travels of a needle: "Over twenty years ago Mrs. Augusta Peabody, of this city, accidentally swallowed a small cambric needle. One day last week Mr. Henry Peabody, the fifteen-year-old son of this lady, complained of intense pain in his right side. A physician was summoned to examine the inflamed spot, which appeared midway between the boy's shoulder and the waist. After cutting into the flesh, the physician removed from the boy the identical needle which the boy's mother had swallowed twenty years before. The case has excited much discussion in local medical and surgical circles, and will be the subject of several papers at the next meeting of the State Physicians' Institute in this city next month."

STRICTLY HYGIENIC.—A rather eccentric, yet eminent physician, was called upon to attend a middle-aged rich lady who had imaginary ills. After many wise inquiries about her symptoms and manner of life, he asked for a piece of paper and wrote down the following prescription: "Do something for somebody." In the gravest manner he handed it to the patient and left. The doctor heard nothing from the lady for a long time. One Christmas morning he was hastily summoned to the cottage of his Irish washer-woman.

"It's not meself, doctor, it's me wrist that's ailing. Ye see, I was after goin' out into the black darkness for a few bits of wood, when me fut struck this basket. It stood there like a big mercy, as it was, full of soft flannel from Mrs. Walker. She told me that your medicine cured her, doctor. So, if you plaz to put a little of that same on me wrist, I'll be none the worse for me nice present."

"It's a powerful remedy," said the doc-

tor, gravely. And more than once in after years he wrote the prescription: "Do something for somebody."

INFECTED BY A PARROT.—Our correspondent, Mr. Henry Noble, of Turin, Italy, sends us the following peculiar item: "About a year ago, the Fueter family of Oberbalm were destroyed by a contagious breast disease, the origin of which was traced to a sick parrot. With the extinction of that family the inheritance passed to certain distant relatives of Franenfeld, and among the things which were inherited was the parrot. After the lapse of a few months four members of the Franenfeld household became ill, and the parrot died. As the cause of the infection was known, the body of the bird was sent to the Museum of Natural History at Berne for an examination. A Dr. Grimm, an assistant there, became ill shortly afterward, being struck by a serious breast complaint. All the medical force are now studying the strange case."

NOTES IN SCIENCE AND AGRICULTURE.

Position in Sleep and Dreams.—Dr. Delaunay, a French observer, in a communication to the Biological Society of Paris, states certain conclusions of his with reference to the production of dreams by the manner in which one lies while sleeping. The fact of disagreeable dreams while one lies on his back is explained by the connection which is known to exist between the organs of sensation and the posterior part of the brain. The most general method of lying, perhaps, is on the right side, and this appears to be also the most natural method, for many persons object to lying upon the side of the heart, which, it has been more than once asserted, should have free action during sleep. Nevertheless, Dr. Delaunay's statements hardly harmonize with this opinion. When one sleeps upon the right side, that is to say, upon the right side of the brain, one's dreams have marked and rather unpleasant characteristics. These characteristics, however, are essentially those which enter into the popular definition of dreams. One's dreams are then apt to be illogical, absurd, childish, uncertain, incoherent, full of vivacity and exaggeration. Dreams which come from sleeping on the right side are, in short, simply deceptions. They bring to the mind very old or faint remembrances, and they are often accompanied by nightmares. Dr. Delaunay points

out that sleepers frequently compose verse or rhythmical language while they are lying on their right side; this verse, though at times correct enough, is absolutely without sense. The moral faculties are then at work but the intellectual faculties are absent. On the other hand, when a person slumbers on his left brain, his brains are not only less absurd, they may also be intelligent. They are, as a rule, concerned with recent things, not with reminiscences.

Fall of Meteoric Matter to the EARTH.—In a contribution by Prof. C. A. Young, to the *North American Review*, he says on this point: "Space is filled also with minor particles, separated from each other only by intervals of a few hundred miles; and these, in the form of meteors and shooting stars, are rushing through space, dropping continually upon the larger worlds, increasing their size, and adding to their store of heat and energy. Every year the earth encounters nearly three thousand millions of them, according to the estimate of Prof. Newton, ranging from the merest particles to masses of several hundredweight. Very probably, also, the comets belong to the same category, being really nothing but larger meteors, or flocks of small meteors, or perhaps even only puffs of meteoric dust.

Nearly all the meteors which strike the earth are very minute. Perhaps a hundred or so reach the ground each year as recognizable masses of stone or iron, weighing from an ounce or two to some hundreds of pounds; but all the rest are dissipated in the upper air, and never come down unless as impalpable dust, not to be certainly identified. The whole amount of matter falling daily upon the earth from outer space is probably about one hundred tons on the average (it is variously estimated from twenty-five to five hundred). A hundred tons is in itself a very considerable quantity, but utterly insignificant as compared with the mass of the earth, and entirely incapable of appreciable effect upon our temperature. Assuming even the largest estimate (five hundred tons a day), and also that the average velocity with which meteors enter our atmosphere is fifteen miles a second (probably considerably too large), we find that the heat annually received from them by the earth is only about fifty-three calories for each square meter of her surface—less than would be imparted by two minutes perpendicular sunshine, and only about $\frac{1}{80000}$ of the heat actually received from the sun in a year. Retaining the same extravagant estimate of five hundred tons a day, it appears that the earth's diameter would grow an inch in about one hundred millions of years, and that her distance from the sun would be reduced about eighty-three feet in a million years, in consequence of the resistance experienced in moving through the meteoric swarms."

Suicides and Murders in Italy.—

The suicides and murders are generally in inverse proportion in the different Italian divisions. Of 10,000 cases, there were in 1881 and 1882, according to the statistical report :

	Suicides.		Murders.	
	1882.	1881.	1882.	1881.
Liguria	58.7	47.7	14.3	12.3
Lombardy	54.3	51.0	7.5	11.3
Piedmont	51.3	54.7	13.8	14.4
Tuscany	45.0	35.2	15.4	20.7
Rome	44.7	42.4	57.8	45.5
Emilia	43.8	42.2	14.2	14.5
Venice	39.5	38.4	9.5	6.3
Umbria	36.7	49.6	19.6	24.8
Sardinia	35.7	25.8	32.1	58.0
Campania	26.0	25.0	51.1	47.5
Marche	21.8	13.7	26.2	22.9
Abruzzi, Molise	19.2	17.9	29.9	40.2
Sicily	18.2	16.7	33.1	35.9
Puglia	12.4	11.6	29.9	27.4
Calabria	8.8	3.7	35.2	36.9
Basilicata	6.3	7.4	25.3	44.4

In suicides and murders combined Rome ranks No. 1, with a total of 190.4; Sardinia, as No. 2, with 151.6; Campania, as No. 3, with 149.6. Here we see that the so-called "Holy City" is, of all Italian cities, the most wicked and miserable, if the number of deeds of fatal violence be any criterion for judgment.

N.

Turin, Italy.

Mites in the Hennery.—The henneries of many people are literally alive with mites, even when the proprietors are not aware of the fact. A friend of mine, who had recently finished a neat and expensive hennery, invited me to step inside and observe how effectually he had guarded against vermin. The frame of the building was covered with tarred paper before the siding was nailed on, and the interior was neatly plastered. As he was looking about he remarked that the mischievous boys ought to be switched for throwing mud against the plastering up at the peak. I remarked to him that those disfiguring spots were clusters of lice—not mud. To his profound amazement he found that those blotches of mud were nothing but mites as full of blood as they could be. Indeed he directed his coachman to cleanse the hennery by collecting the clusters with a brush-broom and dust-pan. Then he deluged the interior with water by letting a stream play from the rubber hose on all parts of the hennery, until every crack and crevice was cleansed, after which he applied the broom and scrubbed perches, floor, and walls in a thorough manner. As soon as the water had dried up, he took a large paint-brush and applied kerosene oil to every part of the perches, and filled up every crack with kerosene. This cleansing was repeated every alternate day for a week.

I have frequently employed kerosene oil in my own hennery with the most satisfactory results. Lime applied in powder, or as a whitewash, is not worth one cent to exterminate mites, as they will run about over the lime like mice in the growing grass.

Respected reader, if you have any doubts as to there being any vermin in your hennery, enter it some evening after the hens have gone to roost, and take off your coat and vest and handle some of the hens. If any mites are present, you will discover scores of them on the sleeves of your white shirt. Examine also the perches early in the morning, and you will discover the little pests crawling slowly toward some refuge, where they remain during the day. ESS E. TEE.

Preservation of Ancient Art.—A

letter from M. Renan, lately published in the *Journal des Debats*, contains the following on the above subject: "The preservation of Egyptian monuments is a matter of importance to all humanity. After Greece, that has taught us the beautiful and true, after that which has created religious tradition, Egypt is the country that inspires most of those who have some regard to the objects of art. We attach great value, and with reason, to antiquities called prehistoric. These antiquities, however, have one great defect: they are anepigraphic, that is to say, silent. The Egyptian monuments are of prehistoric antiquity and covered with inscriptions; from them we hear the voice of others like ourselves, who lived upon this earth six thousand years ago. The preservation of the monuments of

Egypt since Champollion, and especially since Mariette, has morally devolved upon France. Here is a protectorate which it is well for us to claim, since it does not impose severe conditions; however, for two years, in consequence of the strange situation in which Egypt has been precipitated—and a situation that will not terminate soon—the work of this preservation has become difficult. M. Asparo performs his duty with a courage and intelligence above all praise, but money is wanting; Egypt can not, in its period of crisis, contribute to the expenses that might be withheld, even by those countries most enlightened, as a matter of luxury. M. Asparo ought to be assisted in his double mission, one of which is not to permit the interruption at all of the series of excavations undertaken by M. Mariette; while the other is to establish a system of protection, so that the monuments now openly exposed to the visit of travellers shall not be too much defaced. All those who have visited Egypt, or who think of visiting it, or who simply have at heart the preservation of the monuments of antiquity, should send him contributions for that purpose. Sixty centuries of history are interested in this; the honor of France, we may add, is implicated."

Houses in the Health Exhibition.—One of the chief attractions of this Exhibition is the Dwelling-house group, on which the *Building News* comments: "One of the most noticeable and pleasing features of the Exhibition, and which may appropriately introduce our notice of the modern dwellings, is the admirable reproduction of an Old London street, erected from the drawings and under the superintendence of Mr. George H. Birch, A.R.I.B.A. A representation of the manner in which our forefathers were housed in the city before the Great Fire had accomplished its work in the reconstruction of the houses of London was a happily-conceived idea, and much praise is due to the promoters, and also to Mr. Birch, for having so thoroughly set before the visitor the conditions of life in the capital of that period. To make the representation as truthful as possible, a proportionate scale had to be fixed. Adopting a narrow width of street, the houses have been erected to preserve the proportion which generally existed in the old city streets, and although in some cases the houses are rather smaller than the originals probably were, many of them are as nearly as possible reproductions in point of size. The street is composed of various houses, grouped together to form a quaint effect; to render the perspective more realistic and telling, the width between the houses has been narrowed at one end, and the irregularity of the old thoroughfare has been obtained by a bend or elbow, while the houses themselves are not set out to a formal line, but project and recede here and there so as to realize the tortuous course of the old thoroughfare. This cleverly grouped collection of old houses represents several well-known inns, houses, and

gateways, of which they are copies, more or less accurate, from old drawings, engravings, and descriptions. Constructed chiefly of stud-work, lath, and plaster, the combined skill of the architect, artist, and scene painter has been called into requisition, and the result is so realistic, the old masonry and timber and tile work have been executed with such inimitable art, that the whole is as perfect an illusion as it would be possible to fabricate in so short a time as these houses have taken to be erected."

It is interesting to notice the disposition of foreign peoples as manifested in their contributions for the support of royalty. In Sweden, where the population is only 4,578,901, the tax is \$6,000,000 for the support of the royal families. The total revenue is only \$20,581,940, and thus nearly 30 per cent. of the revenue goes toward the maintenance of the crown. Denmark pays \$311,105 for the luxury of a king; Greece, \$260,890; Holland, \$312,500; France pays its President only \$180,000; while the German Empire allows its Emperor, kings, and others of that class \$16,538,550, which is about 3 per cent. of the total revenue. Russia is taxed \$12,250,000 for support of its Emperor, and Great Britain \$4,491,015. Turkey pays \$16,250,000, or nearly 27 per cent. of its total revenue. Spain allows only \$2,000,000, which does not bear out the popular notion about the extravagance of that country. The lowest salaried ruler is the President of Switzerland, who receives \$3,000 a year. The countries paying the largest percentage of the revenue for royalty and army and navy are: Italy, 20; Austria and Spain, 21; France and Germany, 21; Denmark, 25; Russia, 35; England, 37; Sweden, 59; and Turkey, 65.

Action of Sunlight on Glass.—The action of sunlight on colorless and colored glass—both that which is polished and that which is rough—is so marked as to have received lately the special attention of chemists. Very perceptible changes have been observed—that is, from colorless to yellow, and from light yellow, green, or blue to the darker or mellow shades of these colors—and specimens of coffee-colored glass are instanced which, in the space of only five years, had materially changed to rose and amber colors. It is thought that the rich, mellow tones, so much admired in the old and richly-stained cathedral windows, are due to the action of the sunlight in a long succession of years, in toning down what were most probably comparatively bright or harsh colors originally—the action, it is supposed, may be a photo-chemical one. Investigations made in this line show, among other practical results, that manganese should be employed in glass to be used for lighthouse purposes; white glass, containing even as small as 5 per cent., exhibits no change.—*Decorators' Gazette.*

A Man Without a Face.—There is to be seen in Landrecies, in the Department

of the North, France, an invalid artillery soldier, who was wounded in the late Franco-German war, when he was terribly mutilated by the bursting of a Prussian shell. The man's face was literally blown off, including both eyes, there being left behind some scanty remnants of the osseous and muscular systems. The skull, which is well covered with hair, was left intact, so that the man had a most hideous and ghastly appearance. This disfigurement has been completely concealed by a mask, which was made for him under the direction of the principal medical officer of Val de Grâce, in Paris, whither he had been transferred from the field ambulance. The mask was constructed by a surgeon-dentist named Delalain. It includes a false palate and a complete set of false teeth; and it is so perfect that the functions of respiration and mastication, which were necessarily and imperfectly performed, are almost completely restored to their normal condition, and the voice, which was rather husky, has resumed its natural tone. The man speaks distinctly, and the sense of smell, which had entirely disappeared, has returned, and he can even play the flute. He wears two false eyes, simply to fill up the cavities of the orbits, for the parts representing the eyes in the mask are closed. In fact, the mask is so well adapted to what remains of the real face, as to be considered one of the finest specimens of the prosthetic art that could be devised.

The man himself, whose name is Moreau, and who is in perfect health, is looked upon as a living curiosity, and travellers go a good deal out of their way to see him. His face, or rather his mask, is, of course, without any expression, but his special senses, particularly that of touch, are extremely developed, and he goes by the sobriquet of "l'homme à la tête de cire" (the man with the wax head). He wears the military Cross of Honor, and delights to talk about what he had gone through during the war. To add to his meagre pension he sells a small pamphlet containing a full description of his wounds, and of the apparatus that has been so skillfully devised as to render him at least presentable to his fellow-creatures.

Singular Conduct of Glass Tubes.

—A most remarkable phenomenon is produced in glass tubes placed in certain circumstances. When these are laid before a fire in a horizontal position, having their extremities properly supported, they acquire a rotary motion round their axis, and also a progressive motion toward the fire, even when their supports are declining from the fire, so that the tubes will move a little way upward to the fire. When the progressive motion of the tubes toward the fire is stopped by any obstacle, their rotation still continues. When the tubes are placed in a nearly upright posture, leaning to the right hand, the motion will be from east to west; but if they lean to the left hand, the motion will be from west to east, and the nearer they are placed to the upright posture, the less will the motion be

either way. If the tube be placed horizontally on a glass plane, the fragment, for instance, of coach-window glass, instead of moving toward the fire, it will move from it and about its axis in a contrary direction to what it had done before; nay, it will recede from the fire, and move a little upward when the plane inclines toward the fire. These experiments succeed best with tubes about 20 to 22 inches long, which have in each end a pretty strong pin fixed in cork for their axis. —*Pharmacist and Chemist.*

Facts and Simple Formulæ for MECHANICS, FARMERS, AND ENGINEERS.—Two hundred and seventy cubic feet of new meadow hay and 216 and 243 feet from large or red stacks will weigh a ton; 297 to 324 cubic feet of dry clover will weigh a ton.

Laths are $1\frac{1}{4}$ to $1\frac{1}{2}$ inches by 4 feet in length, are usually set $\frac{1}{4}$ of an inch apart, and a bundle contains 100.

A tarred rope is about one-fourth weaker than untarred white rope. Tarred hemp and manilla ropes are of about equal strength. Wire rope of the same strength as new hemp rope will run on the same-sized sheaves; but the greater the diameter of the latter, the longer it will wear. One wire rope will usually outlast three hemp ropes. Running wire rope needs no protection; standing rigging should be kept well painted or tarred.

The coefficient of friction of leather belts over wooden drums is 0.47 of the pressure, and over turned cast-iron pulleys 0.28 of the pressure.

A mixture of 9 parts phosphate of soda, 6 parts nitrate of ammonia, and 4 parts dilute nitric acid is a freezing compound which will cause a fall in temperature of 71° Fah.

Three-fourths of a cubic foot of water evaporated per hour will produce 1 horse power.

Cold-blast iron is stronger than hot blast. Annealing cast-iron diminishes its tensile strength.

The safe load in tons which an iron chain will withstand equals the square of the diameter divided by nine.

America's Fifteen Inventions.—

An English journal frankly gives credit to the American nation for at least fifteen inventions and discoveries which, it says, have been adopted all over the world. These triumphs of American genius are thus enumerated: First, the cotton-gin; second, the planing-machine; third, the grass-mower and grain-reaper; fourth, the rotary printing press; fifth, navigation by steam; sixth, the hot-air or caloric engine; seventh, the sewing-machine; eighth, the India-rubber (vulcanite process) industry; ninth, the machine manufacture of horseshoes; tenth, the sand-blast for carving; eleventh, the gauge lathe; twelfth, the grain-elevator; thirteenth, artificial ice manufacture on a large scale; fourteenth, the electro-magnet and its practical application; fifteenth, the composing machine for printers.

Physical Changes in England.—

It is not impossible that the climate has actually changed since England was covered with bush and swamp. It seems certain that the rainfall is less, and probable that it is more evenly distributed; that there were greater floods and less fog in the twelfth and fourteenth centuries. A year in which the snow only lay for half a day during the winter months is recorded by one of our chronicles as a miracle; and a frost like that of A.D. 1281, when men skated from Lambeth to Westminster, and the great masses of ice breaking up bore down five arches of London Bridge, has no parallel later than Charles II. Earthquakes were violent and frequent. In the ten years from A.D. 1825, no fewer than five are recorded, two of which are said to have been great and horrible, while a third was so violent that it shook down several churches in Kent,

"Chambers, chimneys, all to burst,
Churches and castles foul 'gan fare,
Pinnacles and steeples to ground it cast,
And all was for warning to be ware."

Even volcanoes are recorded though not in England itself. A great one broke out in Guernsey during the reign of Henry III., flames bursting up out of the sea, consuming large parts of the cliffs, and sending showers of ashes over the land. C. H. PEARSON.

There is a controversy as to whether an eagle will sit on a limb and allow himself to become encased in ice. Mr. Edward P. Roe related an instance of that kind, and his accuracy was questioned. John Holder now tells how, at Bloomington, Ill., he had an eagle brought to him covered by ice so completely that it could not move legs or wings, fell from the tree on which it had perched, and was captured by a boy.

To Destroy the Orange Scale INSECT.—Some of our Florida readers may thank us for the following recipe which is said to be used with great success in British Guiana:

Pure kerosene.....	1 gallon.
Condensed milk.....	14 pints.
Water.....	3 pints.

Mix the milk and the water before adding the oil, and churn until the whole solidifies and forms a "butter." In applying this preparation, the kerosene "butter" should be diluted with from twelve to sixteen times its quantity of water, and then be applied immediately; for if it is allowed to stand, the "butter" rises to the surface and the mixture is imperfect. The insects can be more readily combated by insecticides during the very short period in which they are active, just after emergence from the egg.

Progress of Agriculture.—Of all the sciences none, within recent years, has so quickly emancipated itself from the fogs

of empirical conjecture as that of agriculture. Up to the end of the last century, even, people believed that air, water, oil, and salts were the sources of plant nutrition. Wallerius, Bergmon, Palissy, Davy, De Saussure, and Sprengel contributed discovery after discovery, investigation after investigation, but their work was scattered and little known outside their laboratories. It was reserved for the genius of Liebig to unite all these fragments of truth; but it was not till 1840 that he produced his great work, "Chemistry in its Application to Agriculture and Physiology," and thus gathered, in concrete form, the materials which are the basis of a now great and rapidly growing science. It is hard to realize that agricultural chemistry has found its application for but forty-four years, so clearly are its benefits before us in tangible form. But on the other hand this only serves to indicate to us how vast must be the results yet to come, when agriculture, through the instrumentality of its knowledge, shall have become in its turn as exact as its sister sciences, and as susceptible of being taught and learned in the same manner as they. And to attain this much desired end, our schools and colleges, under the guidance of far-seeing men, are doing splendid work.

Why Photographic Portraits

ARE RARELY GOOD LIKENESSES.—The fact that photographic portraits are so rarely good likenesses is attributed, by a writer in *Chambers' Journal*, to the circumstance that by photography it has hitherto been found impossible to give colors their true shade value. What is meant by this is that yellow to the eye is a brilliant light tint, but in a photograph it is reproduced almost black; red, instead of giving the idea of fire and light, comes out black, and blue photographs perfectly white,—such changes, of course, playing sad havoc with complexions and contrasts of color generally. According to a recent French process, however, the trouble or drawback in question can be obviated, the plan consisting simply in the addition to the usual ingredients of the sensitive photographic surface of one per cent. of eosine. A modification of the crystoleum process is now being introduced. The photograph, printed in the usual manner on paper, is first of all immersed in a mixture of naphtha, paraffine, mastic drops, ether, and vinegar; this treatment makes it quite transparent, so that body colors in oil, if laid broadly on their places on the back of the picture, show through with good effect.

A Good Stain.—Brunswick black thinned down with turpentine until it has attained the right tone and color, will, if a little varnish be added, about one-twentieth of the bulk of the black and turps, prove a stain for imitating walnut or teak-wood. There is no difficulty in getting the mixture to dry hard, and it will take varnish over it first-class.



FOWLER & WELLS CO., Publishers.
H. S. DRAYTON, A.M., M.D., Editor.

NEW YORK,
SEPTEMBER, 1884.

ANTECEDENTS OF PHRENOLOGY.

FROM time to time attacks are made on the Phrenological system by writers who make claim to scientific attainments. Whether or not at this day such writers are actuated by a desire to emulate the example of Dr. Brown, or Mr. Jeffery, who made the pages of the *Edinburgh Review* the medium for publishing their hostility to Gall, Spurzheim, and Combe, and the principles taught by that eminent trio, we are not prepared to say, but certain it is that these latter-day opponents of Phrenology rarely show an acquaintance with the subject sufficient to warrant them in criticising its principles and methods. In nearly every case, too, the attacking party has exhibited weaknesses of information with reference to the details of brain anatomy and the most recent contributions of observers to the literature of neurology.

Not long since our attention was directed by a correspondent to an article published in the *Globe-Democrat* of St. Louis, by an anonymous writer, who makes a considerable display of learning, but learning that is diffuse and much blended with conjecture. He opens with

allusions to several of the "old philosophers," offering in a very few lines what purports to be a review of their opinions on nervous structure and function, but which seems to us to be little more than the wholesale relegation of men, whose influence on ancient and mediæval thought can scarcely be estimated now, to the domain of "fanciful speculation." He evidently forgets that science, both physical and mental, had its forerunners in ancient time, as the monuments of Egypt and the literature of India and Greece abundantly testify. Thales, although he lived 600 years before Christ, enunciated a theory of the universe of which the Galilean system is the modern analogue. Democritus formulated a view of the composition of matter that is almost identical with that of the modern atomic theory. Hippocrates presented an elaborate system of treating disease that is represented to-day in the evolution of "rational" medication. If the *Globe-Democrat* writer had examined the literature of Greece he would have found that it made a practical application of the views entertained by Plato, Aristotle, and others in respect to their ideas of mind function. He mentions Aristotle, in four lines, to the effect that this greatest physiologist of antiquity "supposed the heart to be the seat of the 'rational soul,' and that the brain was cold, bloodless, and inert, of no use at all except to cool the heart," whereas Aristotle formulated a carefully studied system of brain function in direct relation to the faculties of mind, dividing the latter into five grand divisions of common-sense, imagination, judgment, reflection, and memory. He held definitely that the ventricles or cavities of the brain were the receptacles of ideas; and in laying out his scheme, presented the

first authentic system of brain localization known to science. He designated the anterior parts of what are now known as the lateral ventricles, judging the cavity formed by them to be correspondent with the forehead, as the seat of common sense. Imagination, judgment, and reflection he allotted to the cavities in the middle region of the brain, and explained that these parts communicated with the anterior openings by small channels, through which the impressions made on the five senses were transmitted to the interior faculties. The third ventricle or occipital region he devoted to memory.

That Aristotle was of the opinion that the development of function gave form to the head, is shown clearly enough in his treatise on Physiognomy. To quote a passage: "Those who have a large head are sagacious like dogs; those who have a small head are stupid like asses; those who have a conical head have no shame, are like birds with curved claws."

The opinions of Aristotle affected most powerfully, as every student of history knows, the thought of all subsequent ages; and many eminent for wisdom in theology or philosophy or medicine, appear by their writings as extant to have accepted his system of brain division. Some extended it by setting off additional regions in correspondence with what they deemed to be essential faculties. But when we look into the art and literature of the Greek physiologist's time, we are inclined to impute to him the character of an expositor rather than an originator of physiognomical principles; because the writers and artists in his day were much given to illustrating types of character by outline and expression of the head and face, as well as by attitude and conduct. When the Athe-

nian sculptor would represent genius or intelligence in his marble, he gave a large, projecting head to his figure. In the different characterizations of Jupiter, Apollo, Minerva, we find the forehead large in proportion to the remainder of the head. But in divinities like Bacchus, Venus, Pan, to whom a sphere mainly sensuous was assigned, the heads are portrayed with large occiputs, and relatively small foreheads. So too the gladiators and athletes were portrayed with massive side and back heads. One of the poets, Apollonius of Rhodes, describes Medea in his *Argonantes*, as suffering from pain in the region of the cerebellum, because of her affection for Jason. Thus: "The fire that devours her, attacks all her nerves and makes itself felt even behind her head in that spot where pain is most poignant when an extreme fervor seizes on all the senses."

Here is a plain intimation by the poet of a belief, current at least among the learned of his day, respecting the seat of an emotional sense in the head.

We are of opinion that what was received among the Greeks 2,000 years ago, with reference to a relation between the form of the head and mental function, was due to ideas that had been derived from much earlier periods, and that there were wise men far back in the past who believed that the brain was not only the centre of human thought, but gave shape and character to its osseous envelope. The most ancient literature, that of India, treasured a saying of this nature, "God has written the history of every man upon his skull."

To those who give much heed to the study of mind in its individual relations, this epigram or proverb has an important significance. It awakens from the long

sleep of *æons* an array of sages who possessed something of the character of the mind-reader; it suggests the probability that there was some ancient Gall, who grasped the truth we profess, and so faithfully applied it in his teachings, that a school of thought was established and had its period of flower and fruitage, yet decayed with the blight that fell upon India; but nevertheless left an influence in the traditionary axiom that survives, "God has written the history of every man upon his skull." Mark the definiteness of this statement and the directness of its application. It has a scientific precision that separates it from all effusions of mere sentiment or fancy, and like other pearls of ancient wisdom that survive to our day it bears the stamp of deduction synthetical and logical from premises of nature's own forging in the human organism.

SOME MEDICATED SPRINGS.

ON the approach of warm weather we are greeted with circulars from different sections of the country that testify to discovery of new fountains of water containing wonderful properties. Aside from the common earthy matters, like soda, lime, silica, incident to springs, but which are usually set forth in the circular with emphasis, as if they were of peculiar and unusual importance; other substances are mentioned in the analyses, and their virtues highly extolled. For instance we are informed on the authority of some one we never heard of, notwithstanding the numerous capitals at the end of his name, that owing to the presence of magnesium and sulphur and iron and sodium and barium in the water, they who use it internally and externally

will rapidly overcome chronic infirmities like rheumatism, or kidney troubles, or heart disturbance, or lung weakness, or liver congestion; in fine, any disease will find positive discouragement to its further development when brought in contact with the magic water.

A year or two ago a wonderful "medicinal spring" was discovered by an enterprising man somewhere on Long Island, and capital was obtained for building a hotel on its site, and for advertising its unspeakable virtues. A long analysis, bearing the name of a chemist, was paraded in the newspapers. Among the constituents of the diluted medicine, was sulphur in three or four combinations, the very reading of which brought a noxious taste to our tongue, and a disagreeable odor to our lips. It was said that the water was so strongly impregnated with "medicinal" gases that they were decidedly apparent to taste and smell; but this feature only proved the analysis, and showed the "value" of the water. Well, people sick and well went to the place, and tried the water, but such was its "strength," that very few could adapt themselves to it. Some there were who insisted that the proprietor was a humbug, and his spring nothing more than a ditch of rotteness. It came to pass that some fault in the drainage from the "institution" compelled the proprietor to make an excavation, and while the workmen were digging they suddenly broke into an old vault that had probably served the purposes of two or three generations of farmers, but had been covered over and forgotten. The fetid ooze of this vault made the earth rank for many feet around, and as the wonderful spring was but twenty-five feet or so distant, and lower down, the

source of its peculiar odors and saline virtues was at once divulged. There were very few patients in that "sanitarium" next day.

Another case, of a similar character, has been reported by a Brooklyn newspaper: One Mr. R—, while digging on the bank of a well-known stream near that city, struck a fountain of "mineral water." Thinking that he had discovered a source of wealth, a regular Baden-Baden, he applied to a chemist of ability for an analysis of the water; and to make sure of every feature of the discovery, conducted the scientific gentleman over the ground of the future spa. The chemist took a bottleful of the liquid to his laboratory, and in due time sent Mr. R— the following

"ANALYSIS OF THE NEWLY-DISCOVERED NEW-TOWN CREEK MINERAL SPRING WATER.

Salt-water.....	750
Coal oil.....	34
Extract of dead dog.....	13
Precipitate of cat.....	24
Oxide of hoop-skirt.....	17
Sesquioxide of barrel hoops.....	10
Quintessence of glue.....	14
Decomposed bone.....	56
Infusion of soot.....	8
Triturated paint screenings.....	11
Boarding-house butter.....	9
Fish residuum.....	19
Conglomerated sediments.....	23
Other nasty things.....	12

1000

"H. K—, Analytical Chemist."

There are many widely-advertised and much-patronized medicinal springs in different parts of the country that have little more claim for healing virtue than this, but their analyses are not so plainly set forth.

THE NEGRO SOUTH.

NOT long ago one of our prominent Monthlies published a sort of symposium, in which the opinions of diherent writers were given with regard to the

condition of the Negro in the South. It seemed to be the general opinion of these writers, that the Negro was in a depressed state, and not contributing at all to the development of the community at large. Some very distressing statements were made with reference to his immorality, his shiftlessness, and so on; and it seemed a matter of reasonable inference that emancipation had not brought about a very happy state of affairs for the colored man or for the white. Within a few months we have been given a different view, through the glasses of one of our educators, Professor Greener, who has been making an extensive tour through the Southern States, and his reports as given by the press are deemed worthy of high respect. In brief, Professor Greener finds an increasing pride of race, an independence of character, an improvement in dress, a stronger desire for business pursuits, and a growing thirst for education among the colored people. He declares that the missionary teachers have accomplished much, that they have helped the Negro to his feet, and have opened places of employment which in slavery were entirely closed to him. Every mechanical vocation claims him for a worker; he is efficient, and needs but further opportunities and encouragement to place himself on higher levels of usefulness. Some have advanced far enough in mental culture to take part in legislation and politics, a sphere requiring a fair degree of intellectual development and practical sagacity. At the late Republican Convention held in Chicago, there were upward of seventy-five colored men representing different electoral districts. One of these, Mr. Lynch, was of sufficient prominence and ability to be made Temporary Chairman of the Convention

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.
4. Never soil your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal matters will be considered by the Editor if this is done.

WANTS TO BE A PHYSICIAN.—C. G. M.

—The young lady has a good physical organization, a lively, elastic temperament, ambition, will, and independence, with good observing organs, and ready judgment. We do not see any objection, so far as the portrait is concerned, to her persevering in the direction she has marked out for herself.

ACTORS AND ACTING.—H. A.—One to be a good actor, especially in the dramatic line, requires a well-developed brain. The parts that he must represent are many-sided, therefore all or nearly all of the mental faculties are brought into requisition, and the more thoroughly they are developed, the more nearly perfect will be his rendering. Of the two men to whom allusion is made, Booth is the superior intellectually, by inheritance and by culture; he has a finer type of organism. Mr. McCullough is a man of stronger physical capabilities, but has not the fine sense of the higher phases of sentiment that Mr. Booth possesses, yet Mr. McCullough has greatly improved since he first came before the public, and much credit is due to him for what he has accomplished.

We can predicate of ordinary photographs the

general characteristics of a person, and to a degree their adaptations.

CAPITAL PUNISHMENT AND PHILOSOPHY.—DR. T. M. B.—One's view of this subject depends upon his organization. Pure philosophy is based upon reason, and reason is impartial or just. Now justice would render a verdict in a case of murder that would be more nearly in accordance with the statute that condemns the murderer to suffer the penalty of death. Mosaic law is looked upon as rigorous and severe, yet in the light of reason it is founded upon the principles of justice. In modern law the sentiments of benevolence and sympathy, or extenuation and allowance enter; and as a consequence, modern law is not very severe or cruel. A man's view, therefore, of what punishment should be inflicted for crime is dependent upon the development of his sentiments. One with large Conscientiousness and moderate Benevolence would be likely to urge a full measure of the punishment, or a penalty that would approximate the nature of the crime—would reward as it were in kind. One with large Benevolence and moderate Conscientiousness would be likely to urge extenuating circumstances, and let the offender off with but a moderate punishment.

CAUSE OF CHOLERA.—C. W. K. W.

We do not think that Asiatic cholera is caused by fruit eating; on the contrary, we think that its development is due to dietetic habits that do not include sufficient fruits. In summer, if one partake abundantly of fresh fruit, say at breakfast and dinner, he will be likely to have a free digestion and orderly bowels, the juice of the fruit being conducive to their action; and a good digestion is not compatible with those biliary disturbances to which cholera is related. If one be careful in his diet he is not likely to contract such diseases.

MEASUREMENT OF VITALITY.—C. R.

—The statement of Dr. Powell is not a trivial one. Broad heads are generally indicative of vital vigor. A man with a broad head is inclined to be more active, more executive and in earnest, than one with a narrow head. The observation of "shoulder hitters" and "sporting" men as a class, would warrant Dr. P.'s conclusion, for the reason that, as a class, the cranial fossæ in the heads of such men are deep. The brain in the neighborhood of the ears dips much below the plane of the superciliary ridges. Phrenology, as you know, recognizes a special organ called Vitativeness, back of the ear, indicated in part by the extension of the mastoid processes. This extension is related to the fulness or breadth in the temporal region. Again, men of strong organisms, with the Motive temperament well devel-

oped, have projecting brows; the length from the opening of the ear to the eyebrows is long, and with that temperament there is usually associated fulness in the temporal region, so that the measurement which you speak of, "from the centre of the external orbit of the eye to the orifice of the ear," around the head, is considerable.

GAMBETTA.—C. J. M.—Shortly after the death of this eminent Frenchman we published two or three items on his brain, in answer to inquiries similar to yours. The facts with regard to the examination of the brain were by no means satisfactory; that is, there was no full account of the method pursued and the results obtained, and as a consequence the statement of its weight gave occasion to mistrust. In life, M. Gambetta carried a very large head on his shoulders, and warranted the inference that he possessed an unusually large brain; the proportions of his head were matters of comment. He died a victim of a wasting disease that doubtless affected the nervous system seriously, and if his brain were not examined soon after death, it is most likely that alterations occurred in the brain tissue, by which a large amount of fluid was formed, the delicate nervous tissue disintegrated and dissolved, and what was left in solid mass but poorly represented what had once been in the skull in vigorous life.

CRITICAL ORGANIZATION.—A. C.—A good development of the upper range of intellectual organs is necessary to critical character; that is, a good development of Causality, Comparison, and Mirthfulness or wit; a fair development of the perceptive faculties is of great assistance, supplying the material for criticism and analysis; of course people differ in their critical adaptation, and that is dependent upon the organization in other respects.

ROUND SHOULDERS.—H. P.—If your occupation is such as to produce bent and stooping shoulders, unless precautions are taken to correct the tendency you should make use of means for that purpose. When out of doors and not at the desk, straighten up, throw back the shoulders as far as possible, breathe deeply, walk rapidly, and wear, if you think it necessary, braces properly adjusted. Some one suggests a mode of exercise as helpful in correcting the tendency to stoop, to wit: Hook the fingers of the hands together, and raise the elbows as high as the shoulders and pull strongly. By doing this frequently, the muscles of the shoulder-blades are strengthened, and thus serve to keep the shoulders in normal condition. Lie down on the back and raise the chest a few times, by pressure of the head against the cushion or pillow on which it is resting. This exercise will strengthen the muscles of the neck, and give it more steadiness in the erect posture.

THE NOSE IN MARRIAGE.—B. C.—The nose is not of so much importance as the tempera-

ment in marriage; although there is a relation between the nasal organ and temperament. We do not go so far as to say that persons having similar noses should not marry, but if, associated with a similarity of nose, there were the same complexion, color of hair and eyes, and a nervous temperament, we should dissuade an alliance between the parties. There may be very marked differences in temperament, and yet nasal similarity. We often meet with straight, regular noses with the Motive temperament, and so too with the Vital; they are more frequent, to be sure, with the Nervous or Mental.

VEGETARIAN RACES.—L. P.—Yes, many illustrations can be furnished from mankind, in support of statements that have been made in these columns, to the effect that it is not necessary that man should eat the flesh of animals in order to attain a good physical development, and be healthy and strong. It is claimed that man in the early periods subsisted altogether upon the products of the soil, and cite the story of Adam and Eve in the garden as a basis of fact. The Maningo tribes, Abyssinian, Nubian, tribes in India, some of the Turkish tribes, the Hindoos, and people of Eastern Arabia, and the inhabitants of many of the Pacific Islands, live almost entirely upon farinaceous food, fruits and vegetables, and for the most part are vigorous, well developed, symmetrical, active, and strong. It is said of the ancient Roman soldier, that he would march all day, laden with his heavy armor and camp equipage, and needed but a pound or two of barley for his subsistence. So it was said of the middle age Turkish soldier; his ration of wheat or barley provided all the strength he needed for marching and fighting in the long campaigns that were incident to those old conflicts between the Turanian and the civilized European.

LETTER-WRITING BETWEEN STRANGERS.—C. S. M.—We think that it is improper for ladies and gentlemen totally unknown to each other to correspond by letter. Those who are given to such a practice, as a class are not above mean and wicked motives. We think decidedly that ladies of "the right stamp" are not likely to engage in it; and if any young man or young woman of correct principles is not able to find suitable companions in the neighborhood where he or she lives, the fault is not so much in the community as in the persons themselves.

SIXTH AND SEVENTH BOOKS OF MOSES.—J. S. Flory, of Hygiene, Colorado, writes in answer to F. H.'s inquiry about the Sixth and Seventh Books of Moses: "There is such a work advertised in some places (under that name at least). It is a work that borders on heathen mythology, and of no consequence to men of learning. It is a veritable slander on the old patriarch and servant of God."

WHAT IS MY TEMPERAMENT?—T. M.
—If you came to our office we could answer your question very soon and without charge, as we have no price for such a response—unless you wished to consume much of our time. In making an examination from portraits and written out, a reasonable charge is made. Tell us what you want and we will respond.

HEREDITY THROUGH MILK.—L. K.—N. O.—No, we think that mere nursing has very little to do with the inheritance of qualities. There may be stomachic conditions, induced by irregular and unwise treatment, that have an influence upon the nervous system, rendering it irritable and weak, because the brain is insufficiently nourished. The child gets organization physical and mental from its parents originally, and training moulds organization.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

LONGFELLOW AND TENNYSON.—Perhaps, in character and authorship, no two poems better admit of contrast than the "Enoch Arden" of England's poet-laureate, and the "Evangeline" of our own. They were written by men of equal fame, and may be of equal talent. Each was meant to be a romance "that might live"; each pictured constancy. In such a contest, we might well look for doubt and disagreement among the judges. The result is the reverse. The laurels have fallen to Tennyson.

We conjecture that the influence of an American atmosphere should have given freer play to Longfellow's thought, and that the pent-up English air should have clogged the wheels in Tennyson's mind. As before, the result shows the reverse. In point of comparison, the groundwork of the American poem betokens less originality than does the other. We have many novels that embody the adventures of Evangeline and Gabriel. Indeed, as to this point, the poem is even inferior to many of our magazine tales. From beginning to end, there is no striking feature. On the other hand, "Enoch Arden" continually surprises us. At first, we confidently expect the reunion of husband and wife; Phillip and Annie marry. We then look for news of Enoch's death; he, however, returns. We believe he will reclaim his wife; he does not. We then fear that Annie will never know he did return; again, the sequel is otherwise. It all differs from the usual drift of our current literature.

Tennyson appeals to the feelings; Longfellow, to the eye. Perfect naturalness pervades Enoch Arden. Each event, each act, seems just such as may often have been repeated; just such as we our-

selves may some day meet, excepting, perhaps, the unusual, Crusoe-like shipwreck. The tale seems real, and we lose ourselves in a semi-belief that it is true. With Evangeline, the case is otherwise. Nothing could seem more unreal than the exile of the whole community, and nothing more barbarous than the burning of the town. Yet, such is supposed to be ordered by a monarch of the eighteenth century, and executed in full sight of all Christendom. Nor can we believe that, after so long wandering over a broad country, Evangeline's party would chance to find the settlement of their friends; even less, that Gabriel would happen to pass them as he left the region. Evangeline's pursuit, its endless expectation and disappointment, seem simply like well-adjusted machinery. From the poet's tone in the description, I believe he was himself aware of this resemblance. The final meeting, afar in an Eastern hospital, is in the ratio to probability as one is to ten million. The poem has little in common with human experience, and therefore our sympathies remain asleep. Indeed, we grow so used to the idea of mechanism, that, forgetting the sorrow of the story, we have no wish that any feature were different, lest the coadjustment of the part be disturbed.

Enoch Arden dwells upon particulars; Evangeline deals nearly always in the general. Our memories of life are only links in a chain of particulars. As we view a full painting, our impression never equals that we get when we come closer and note each expression. Coupling these two facts, we are able to see why Tennyson pleases most. If we add the point touched above, lifelike groundwork, the two features combine to form one whose worth is as much greater than the sum-worth of both separate, as the value of the diamond is greater than when halved.

A story's ending determines much the reader's satisfaction. The interest excited within us, like our regard for a friend, demands that the hero's last desire be realized. There are popular books which disregard this law; but, rather than being even exceptions, their popularity arises from other merits, and, were the absent merit present, their popularity would invariably be greater. I think we here find a principal reason why the Arabian Nights Entertainments never grows old. Now, Enoch Arden is a hero. His last ruling desire is that he shall keep his secret till he dies. His noble object inspires our hope that he may succeed; and, he does succeed. The secondary character, Annie, has no expressed desire; but, it is evident that, in her calm afterthought, she is glad Enoch did not come to her; hence, glad that he is dead. In the case of Evangeline after the two meet, neither has an expressed desire; but, each betrays an intense emotion, consistent only with a longing for Gabriel's recovery. Yet, he dies. Two lives of repeated disappointment end in hopelessness.

We all admit the force of purely indirect influ-

ences. They always affect, often control, the judgment. Because unseen and usually unknown, they are the more potent. Two such act to bias in Tennyson's favor. One is that our literature always makes woman the heroine, and man the secondary character. When, as now, man is made hero and woman secondary in character, the mind of the reader is pleased by the contrast. The other influence is of like nature; in that, man is here given the first position, the latent germs of *egotism* are stirred! The unwritten compliment to the hero seems extended to the whole sex; therefore, to the reader as one of that sex. The *man* is gratified in a manner analogous to the feeling inspired within us by praise for our own nation. We may thus explain the pleasure *ladies* find in ladies' magazines, whose sketches always canonize some *heroines*.

Ere I close, it would be unfair not to speak a redeeming word for Mr. Longfellow; and, I am far from assuming that his poem has no minor excellencies, or Tennyson's no minor faults. In *Evangeline* there are many felicities of expression, poetic beauties; in *Enoch Arden* there are few. Possibly the one sought them more than did the other. Be this as it may, it will hardly be disputed that Longfellow is the better able to write them.

"Men, whose lives glided on like rivers that water the woodland,
Darkened by shadows of earth, but reflecting an image of heaven."
AL WARE.

INTELLECT IN RELIGION.—"I said therefore unto you, that ye shall die in your sins: for if ye believe not that I am *he*, ye shall die in your sins." When I read these words of *Jesus* to the doubting Jews, the question arises, How can I believe on *Jesus*? To this question, I answer that evidence is the foundation of belief,—the fact of the one necessitates the fact of the other. Therefore if I believe on the work and mission of *Jesus* it is because I can not disbelieve. The evidences of religion lie in the constitution of man, the physical world, and are set forth in the Bible, and it is the province of the human intellect to lay hold of the evidences herein contained. The truths of religion are not axiomatic truths, nor are they positive truths, *i. e.*, capable of logical demonstration. The man who would accept nothing as truth or knowledge that could not be *proved*, like a problem in mathematics, would admit that he could *know* but little, and as long as he lived he would be inconsistent with himself, for his sphere of action must be much larger than his theory would allow. The husbandman sowing the seed can not *prove* the harvest. The blacksmith working at his anvil can never prove that the *iron* does not feel pain from every stroke of the hammer, yet it is well they believe in the harvest and that iron is without sense. The Hebrew Psalmist, full of joy, sang praises unto God though he could not prove the origin of that joy; yet had he not a reason for the hope within him?

Religion is progressive just as the human intellect

is progressive. History shows this. The religion of the first and tenth centuries is not the religion of to-day in systematic formulation; neither will the religion of to-day be the religion of the twenty-fifth or thirtieth centuries (should the world stand till that time). As man advances in knowledge, he is capable of coming nearer to God. He is constituted with the faculties of Veneration and Spirituality, which in their blindness reach after God. These faculties combined with Firmness give the dogmatic element in religion; but when not guided by the intellect, dogma leads to superstition and persecution. A blind faith is no better than skepticism; and in order to be delivered from these, let us study the evidences.

JESSE B. MOWRY.

THE TWO LECTURES.—A while ago I attended a lecture entitled "American Homes." An attractive subject certainly; and as the lecturer was highly recommended, and is quite widely known, and was thoroughly advertised, he had a large audience. This man carries the prefix Rev. and quite a number of affixes to his name, I believe; but such things are so common now that one fails to notice them. He professes to be a preacher of the gospel; but for wholesome distinctions between right and wrong, honesty and dishonesty, I should prefer, as a hundred to one, to have boys just coming to manhood attend the play called "Josh Whitcombe," rather than that lecture. I have never attended many plays, and am opposed to theatrical performances, but in what plays I have attended I have never heard anything so demoralizing as this "preacher's" talk. He described "the man at home and the man in a business transaction," which involved an amount of cheating and lying that would make any moral father who believes in the "spare the rod and spoil the child" doctrine, give a son who should practice it such a dressing down as he would remember to his dying day. But this preacher of the gospel—this should-be expounder of the Golden Rule—simply raised a laugh over it, and said, "Such things always have been, and such things always will be in the sharp competitions of business life."

On my way home I heard half-grown boys ringing the changes on "that typical business transaction," trying to fix this cheating lesson in their minds, till I burned with indignation that that man should so degrade his high calling and the house that is called the house of God. I thought of Him who said, "It is written, 'My house shall be called a house of prayer'; but ye have made it a den of thieves," and wondered if He would not utter the same rebuke to-day were He walking the earth. I blush to bear the name of Christian in common with a man who is satisfied to make money by amusing an audience with the moral deformities of his fellow-men, just as some who are called "vulgar fellows" do with such physical deformities as a crossed eye or a hunched back. Anyone at all inclined to depend on the speaker's idea of the matter and not

previously educated in common morality, would have left that church with the impression that lying and cheating are perfectly right and proper in "business transactions."

The talk about women and girls was equally vitiating. The wife was the power behind the throne, managing the husband by intrigue; the daughter was the young lady maneuvering for a rich husband. However true these delineations of character may be, it is most hurtful to present them with good-natured toleration as they were inevitable and the best humanity is capable of. Whenever the weak, bad side of humanity is presented, the strong and good should be given in contrast.

Such a speaker, a church congregation who engage such a speaker, and an audience that smiles complacently on such a speaker, are enough, for a time, to dishearten the most ardent believer in the final supremacy of truth and justice, and make us believe that the country is sold out, the pulpit, press, and legislatures all given over to the greed of gain. In that whole lecture was not one spark of earnestness. The people paid fifty cents, and seemed satisfied that the Rev. Zany had given them their money's worth in amusement.

And now let me speak for a little of another lecture, entitled "The Needs of the Hour." This was a free lecture. I heard it some time before the one just described, on a rainy evening in a small basement room of a small church; but its purity, sweetness, vigor, and moral earnestness stay with me yet, and I yet feel grateful for that uplifting. This, too, showed the base, low side of life, but it also showed what might be and should be, and outlined the means to that end. Though I am usually not fond of repetitions, I would go a long distance to hear that lecture again. It made the right look so desirable and the wrong so undesirable, that we could but feel that because of its very desirability, the right must finally supersede the wrong. And yet, it is sorrowful that so many would pay for, and hear, and applaud the bad, while so few would take the good when freely given.

CELIA B. WHITEHEAD.

THE EDITOR of *Our Best Words*, published at Shelbyville, Ill., writes thus appreciatively of the PHRENOLOGICAL JOURNAL:

"As well as we recollect, the first dollar that we could ever call our own we gave for a year's subscription to this journal. That was in our boyhood, more than thirty years ago; and it is not too much to say that this journal was a very important plank in the bridge that carried us over a perilous period of our life. There were bad books and papers even then, for young people to read, and we saw some of them, and but for the good fortune of the attractive pages of the PHRENOLOGICAL JOURNAL we probably would have read them more than we did, and been led sadly astray, as many boys have been before and since. We have been a reader of the

JOURNAL more or less from that time. There are thousands of young and old people who are in danger of bad literature now, as we were then, who would be greatly interested in it and benefited by this journal. Therefore, for the sake of all such, as well as for old friendship's sake, and in gratitude we hereby heartily commend the periodical that was a part of the bridge which carried us safe."

PERSONAL.

LIZZIE BRASLEY, of White Cloud, Kan., decided to kill herself by refraining from food. She lived fifty-three days, refusing to speak or take any nourishment during this long period. Dr. Tanner, try again.

COL. HYATT, principal of the Pennsylvania Military Academy, and Captain Carter, of the same institution, declined to attend a meeting of the graduates of their own institution, as wine was to be served at the dinner. All honor to such obedience to principle.

GENERAL McCLELLAN, Mr. Brayton Ives, and other New Yorkers, have formed a company to operate what will probably be the largest cattle ranche in the world. It is in Grant County, N. M., and is about forty miles from east to west, and sixty from north to south, comprising about 1,500,000 acres of grazing land.

MISS CATHARINE L. WOLFE, probably the wealthiest unmarried lady in the United States, purposes to send a party of explorers to Babylon, headed by Dr. W. H. Hayes. In this way she can use some of her income in the cause of science, and laudably. Heretofore art collections seem to have drawn most on her cheque-book.

JANE GREY SWISSELM, the well-known writer, died July 12th, at her residence in Swissvale, near Pittsburgh, Pa. Mrs. Swisshelm was nearly seventy years of age, but still vigorous and active in the cause of reform to which she had devoted the greater part of her life. She was prominent in temperance work, and advocated the higher education of women and their right to the ballot.

THE Bates family had a delightful reunion at the home of their father and mother, Webster, Mass., July 12th last. Mr. Nelson Bates is 83, his wife 80; they have been married 60 years. All their sons and daughters, eight in number, are living, and they have also 31 grandchildren, and 14 great-grandchildren. An exchange informs us that the Rev. Lucius Holmes married Sophia, one of the daughters, and was present at the reunion, contributing to its enjoyment by his genial humor.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

IT is inconceivable how much wit is required to avoid being ridiculous.—*Chamfort*.

OUR greatest glory is not in never falling, but in rising every time we fall.—*Confucius*.

YOU might spend the wealth of the Indies, but the infinite richness of God you can never exhaust.

NATURE has sometimes made a fool ; but a coxcomb is always of a man's own making.—*Addison*.

GOD gives you the best nourishment, although not always the sweetest to the taste.—*Madame Guyon*.

THERE is a gift that is almost a blow, and there is a kind word that is munificence ; so much is there in the way of doing things.—*Arthur Helps*.

WE call it our duty to leave to the world its gaiety and its thoughtlessness ; but too often we leave to it also its grace, and gentleness, and courtesy, and self-control.

Daily trials, daily troubles,
In our lives must bear a part ;
Struggle through them strongly, bravely,
With a steadfast, hopeful heart.

THE average man doesn't feel as bad when he receives ten dollars too much change as when he gets ten cents too little. He is more anxious to correct the little mistake than he is to rectify the big one.

MEN do things which their fathers would have deprecated, and then draw about themselves a flimsy cordon of sophistry, and talk about the advance of humanity and liberal thought, when it is nothing after all but a preference for individual license.—*Rev. John Hall*.

MIRTH.

"A little nonsense now and then
Is relished by the wisest men."

"My dear !" said a lady to her husband, "what is cotton duck ?" "Oh !" said he, "a kind of canvas-back."

WHEN the marriage ceremony was over, the parson was approached by the groom with the question : "What's the *damage*, elder ?"

MR. DUDE : "I always sleep in my gloves, Miss Fresh ; it makes my hands so soft."—Miss Fresh : "And I judge you sleep with a cap for the same reason."

CAUCUSES are in order now. What is a caucus ? Why, when one man quietly gets together thirty or forty of his friends and they all vote as he tells them to.

"DON'T you remember me ?" asked the soda-water clerk of a lady customer. "No, I can not say that I do," she replied, "and yet there is something familiar about your fizz."

AN old farmer who wrote to an editor asking how to get rid of moles, and received the reply : "Plough them out," answered back : "Can't do it. It's on my gal's nose."

A PHOTOGRAPHER in a country town was recently visited by a young woman, who, with sweet simplicity, asked, "How long does it take to get your photograph after you have left your measure ?"

A CHICAGO paper says : "Laziness is not always evenly distributed over a fellow. You may have known a great many lazy people, but did you ever know anybody who didn't use his mouth enough ?"

JUDGE : "If that man don't stop disturbing us with that coughing, I'll fine him \$10."—Response : "Jedge, I'll be willing to pay \$20 to have that cough stopped. If you can do it for \$10, better get off the bench and go to practicing medicine. There's money in it, Jedge, money in it."

A YOUNG man was frequently cautioned by his father to vote for "measures, not men." He promised to do so, and soon after gave his vote for Mr. Peck. His father, astonished at his voting for a man whom he deemed objectionable, inquired the reason for doing so. "Surely, father," said the son, "you told me to vote for measures, and if Peck is not a measure, I don't know what is."

THE following is a copy of a note lately received by a teacher in one of the New York schools :

"MRS. M. :—Except these few lines from a mother's love to her child those evil-minded boys tellig stories on Johnny when the Go down to reses to you to Get him blamed to you there like parisees in Gospel the see beams in there neighbours but the dont pluck mote oute of there One."

JOHNNY thought it would be nice to be a giraffe, for then he could stand on the ground and eat the apples, pears, and cherries that grew on Farmer Jones' trees, beyond the danger of dogs and bear-traps, and could also taste the good things all the way down his neck. But Johnny had a sore throat the other day, and as he laid his head on his pillow upon retiring, he confidentially remarked to his mother that he was glad he wasn't a giraffe, after all. A giraffe, with two or three yards of sore throat, dwarfed his own affliction into nothingness by comparison.



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

PROPERTY IN LAND. A Passage-at-Arms between the Duke of Argyll and Henry George. 12mo, pp. 77. Price in paper, 15 cents. Published by Funk & Wagnalls, New York.

The Duke of Argyll, in an essay entitled "The Prophet of San Francisco," which appeared in the *Nineteenth Century*, for April of this year, takes up the cudgel vigorously and sharply in behalf of the great landed proprietors, of whom he is a distinguished representative. He criticises, with that keen dialectical skill of which he is a well-known master, the doctrines of Mr. George in relation to ownership of land. Many logicians deem his points irrefutable, and say that he disposes most effectually of all claims on the part of Mr. George as a safe champion of socialism. The essay may be generally accepted as expressing the opinion honestly held by the hereditary land-owner of England.

The criticism of the Earl was soon followed by a powerful reply from Mr. George, entitled "The Reduction to Iniquity." There is a sarcasm in the title that has a sting in itself. The essays, when placed in juxtaposition, invite careful reading, for they contain in condensation the earnest declarations of two talented men, and show, as one might say, the true inwardness of the doctrine of right to own land, and of the right or claim to the free use of land by the people. "I am convinced," says Mr. George, "that if the Duke of Argyll will consider the matter as a philosopher rather than as a landlord, he will see the gross inconsistency between the views he expresses as to negro slavery, and the position he assumes as to property in land. In principle the two systems of appropriating the labor of other men are essentially the same, since it is from land and on land that man must live if he is to live at all. A human being is as completely enslaved when the land on which he must live is made the property of another, as when his own flesh and blood are made the property of that other." Thus, the radical Mr. George. We must confess that his radicalism is very elevated in tone. The Duke, on the other hand, is essentially utilitarian. In his view of the question he relies upon his personal experience as a land-owner, and he looks upon Mr. George's propositions as simply absurd in their assertion, and preposterous in their demonstration.

THE HOME IN POETRY. Compiled by Laura C. Holloway, author of "Ladies of the White House," etc. 12mo, pp. 244. Price 25 cents. Funk & Wagnalls, Publishers, N. Y.

Our cyclopedias of poetry are very incomplete and deficient in their selections relating to home, when compared with the multitude of excellent contributions from distinguished pens that make up this collection. The list is divided into eight parts: Songs of Home, Home Pictures, Voices of Home, Home Memories, Joy and Love of Home, Stories of Home, Home and Heaven Gleanings. Properly bound, the book would make a pleasing addition to our home libraries.

L'EVANGELISTE. By Alphonse Daudet. 12mo, paper, 50 cents. New York, Funk & Wagnalls.

M. Daudet is recognized as the leading novelist of France, and his books are read everywhere. They are clean, high in tone, spirited and of a type of imagination quite beyond the commonplace. In the present work he has expressed his opinion of the doings of that well-known system of proselytizing called the Salvation Army, yet we think that an American reader would scarcely recognize his portraits from what is known of Salvation Army effort in this country. The heroine, Eline Ebsen, is a Dane, living with her mother in the Scandinavian colony in Paris. She is on the point of being married, and a happy life seems in store for her, but suddenly a disturbing influence appears in the shape of Madame Autheman, a wealthy banker's wife, who is given to making religious converts. This woman hires Eline to translate some prayer-books, and during the execution of the work the girl becomes filled with her patron's enthusiasm. She breaks with her suitor and deserts her mother to serve as a preacher in the Salvation Army. It goes without saying that Daudet portrays French life in its different lights and shadows with a master pen, and fascinates the attention from first to last. He has in great part the graphic power of the elder Dumas, without that great writer's intense sensationalism.

PUBLICATIONS RECEIVED.

IN HARPER'S MAGAZINE, for August, more than customary space is given to American life and scenery. The West is represented by Montana and Salt Lake City, the East by Richfield Springs and Boston. But probably the reader will dwell more longingly on the beautifully illustrated sketches of Holland, and the pretty "Nature's Serial Story," with its rich flower clusters.

THE BUTLER HEALTH-LIFT, its reasons and its facts, ninth revised edition, showing the effects of systematic and intelligent use of the lifting machine with the above name. Lewis Janes, 76 Wall St., New York, Publisher.

A PERSONAL NARRATIVE OF OPIUM ADDICTION. By J. B. Madison, M.D. Read before the New Jersey State Medical Society, at Atlantic City.

THE PROHIBITION SONGSTER. A new collection of words with music, adapted for uses as a campaign song-book, in temperance societies and gatherings. Some of the best writers in the temperance line are represented. 22mo, paper, 15 cents. J. N. Stearns, Agent, New York.

POPULAR SCIENCE MONTHLY, for August, is, if anything, a little more miscellaneous than usual; leaving the graver channels of scientific discussion here and there, for something of a more attractive nature to the average reader. We are told about Hickory-nuts and Butternuts, The Ghost of Religion, The World's Geyser Regions, Mystic Properties of Numbers, etc. A sketch of Professor Felipe Poey, an eminent French mathematician, is given, accompanied by a portrait. D. Appleton & Co., Publishers.

NORTH AMERICAN REVIEW, Allan Thorndyke Rice, editor, contains in its August Number a variety of solid thought, suggestive and appropriate as usual to the masses. The main titles are The Encouragements of Capital, The Origin of Comets, Are we a Nation of Rascals? The Drift towards Centralization, Prohibition and Persuasion.

THE CENTURY, for August, is a rich and beautiful Number, beyond, we had almost said, its customary degree of excellence; but perhaps our own ideas of art are more nearly met in the Number than is customary, and for that reason we are inclined to say it is an exceptional issue. "A Glance at British Wild Flowers" contains several very admirable engravings. "Recent Architecture in America" shows in fine contrast new methods of building, especially in Boston and New York. "On the Track of Ulysses" contains many classical reminiscences with fine views of Greek scenery.

RULES OF THE THEOSOPHICAL SOCIETY, together with an explanation of its objects and principles. Printed at Madras, New York.

ANNUAL CATALOGUE OF TRINITY COLLEGE, North Carolina. This circular is interesting in one particular at least. It contains the names of some twenty Cherokee Indian students.

OUR LITTLE MEN AND WOMEN, published by D. Lothrop & Company, of Boston, is an admirable publication for the little ones.

THE NEW YORK HOSPITAL. Annual report of the conference committee in charge of the training-school for nurses, together with an address to the graduating class. To fit women by special study for the very important office of nurse, is one of the

developments of our day most worthy of esteem and encouragement.

HARPER'S ILLUSTRATED WEEKLY, HARPER'S BAZAAR, and HARPER'S YOUNG PEOPLE, come to our table with faithful regularity. The recent attitude taken by the editor of the *Weekly*, with reference to the political situation, has given that publication a character scarcely ever before sustained, and doubtless added much to its circulation. Of the *Bazaar*, as a very useful accessory to a lady's boudoir, little need be said, as its merit is universally acknowledged. The *Weekly* for young people is unsurpassed in its class of entertainment for young minds.

ROSA DARLING. Song and chorus composed by George M. Vickers and John P. Dougherty. Published by the latter at Chester, Pa. Price 40 cents, for piano. Up to the average of love-songs.

THIRTEENTH ANNUAL CATALOGUE of the Morgan Park Military Academy, for the academical year commencing Sept. 9, 1884. Capt. Ed. N. Kirk Talcott, Superintendent. We know Capt. Talcott well, and can vouch for the high character of the school that he conducts. Its situation is in a charming suburb of the great lake metropolis.

THE HOMILETIC MONTHLY for August has a good display of sermons and notes from a dozen or more distinguished preachers of the day, among whom are Dr. Gerok of Germany, Spurgeon and Stopford A. Brooke of London, Hall and Storrs of Brooklyn, the late Bishop Simpson, Drs. Armitage and Crosby, etc. But the article likely to attract most attention is the one on "Lay Criticism on the Ministry and the Methods of Church Work" by Mr. Swinton of the New York press. It is a bold and terrible arraignment of "the thousand clergymen of New York," and the entire Christian Church. But "A Veteran Observer" is allowed to reply to Mr. Swinton, and he proves himself to be a master of the subject, and presents an array of facts that have the character of a clear and unanswerable vindication. Funk & Wagnalls, New York.

CANDY-MAKING AT HOME. By one who has tried it. Containing full directions for making 250 different kinds. If candy must be eaten by all young and old folks, it is far better that they prepare for themselves the creams, the caramels, and the taffies, the chocolate drops, and the lozenges, then they will know what they suck with so much gusto. There will be a substantial sweetness in the mucilaginous ooze that can scarcely be found in the anomalous products of the shops. Price of the book is 50 cents. F. R. Everston & Co., Boston, Publishers.

PLAIN FACTS OF ARKANSAS AND TEXAS. Illustrated with diagrams. By H. C. Townsend.

ALL THE LEADING DRUGGISTS SELL PEARS' SOAP

PEARS' SOAP

THE FAMOUS ENGLISH COMPLEXION SOAP.



If Cleanliness is next to Godliness, Soap must be considered as a Salve of Grace and a Clergyman who recommends moral things should be willing to recommend Soap. I am told that my commendation of Pears' Soap has opened for it a large sale in the United States. I am willing to stand by every word in favor of it that I ever uttered. A man must be fastidious indeed who is not satisfied with it.

Henry Ward Beecher



ESTABLISHED IN LONDON 100 YEARS.

A SPECIALTY FOR THE SKIN & COMPLEXION,
As recommended by the greatest English authority on the Skin,
PROF. SIR ERASMUS WILSON, F. R. S.
Pres. of the Royal Col. of Surgeons, England.

Nothing adds so much to personal appearance as a **Bright, Clear Complexion and a Soft Skin.** With these the plainest features become attractive. Without them the handsomest are but coldly impressive.

Many a complexion is marred by impure alkaline and Colored Toilet Soap.

PEARS' SOAP

Is specially prepared for the delicate skin of ladies and children and others sensitive to the weather, winter or summer. In England it is pre-eminently the complexion Soap, and is recommended by all the best authorities, as, on account of its emollient, non-irritant character, **Redness, Roughness and Chapping are prevented, and a clear and bright appearance and a soft, velvety condition imparted and maintained, and a good, healthful and attractive complexion ensured.**

Its agreeable and lasting perfume, beautiful appearance, and soothing properties commend it as the greatest luxury of the toilet. Its durability and consequent economy is remarkable.

15 INTERNATIONAL AWARDS.

ALL THE LEADING DRUGGISTS SELL PEARS' SOAP

PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP

PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP

— JUST PUBLISHED. —

THE MAN WONDERFUL

IN

The House Beautiful

AN ALLEGORY.

Teaching the Principles of Physiology and Hygiene, and the effects of Stimulants and Narcotics.

FOR HOME READING.

Also adapted as a Reader for High Schools, and as a Text-book of Grammar, Intermediate, and District Schools.

BY CHILION B. ALLEN, A.M., LL.B., M.D., AND MARY A. ALLEN, A.B., M.D.

Fully Illustrated, Extra Cloth, 12mo, Price \$1.50.

THE publishers have great pleasure in placing before the public a book which is almost as wonderful as the subject of which it treats. The motive of the book is to teach that the most beautiful, and, at the same time, the most wonderful thing in nature is man; and no one can read these chapters without feeling that the authors have accomplished their task.

The book is an allegory in which the body is the "House Beautiful," and its inhabitant is the "Man Wonderful." The building of the house is shown from foundation to roof, and the different rooms are taken through the different rooms, and their wonders and beauties displayed to us, and all this is being taught—almost without knowing it—Anatomy, Physiology, and Hygiene, with practical suggestions and suggestions.

We are then introduced to the inhabitant of the house, "THE MAN WONDERFUL," and learn of his growth, development, and habits. We also become acquainted with the guests whom he entertains, and that some of them are doubtful acquaintances, some bad, and some decidedly wicked, while others are good, company. Under this form we learn of food, drink, and the effects of narcotics and stimulants.

The illustrations are of the best, and these, together with the happy verbal illustrations, give the reader a clearer idea of the subjects treated than any other work dealing with the same themes.

To pick up the book and read a chapter at random is to excite an interest that can not be satisfied. Every chapter has been read, and the critic will not then be content, for he will wish to re-read it to admire the beauty and simplicity of the style, as well as the ingenuity with which the different subjects are handled, and the skill with which the important points are made prominent.

The Table of Contents by Chapters has these striking subjects:

The "Foundations," which are the bones. The "Walls" are the muscles, while the skin and the roof are called the "Siding and Shingles." The head is an "Observatory," in which are found a pair of "Telegraphs" and radiating from it are the nerves compared to a "Telegraph" and "Phonograph." The communications are kept up with the "Kitchen," "Dining-Room," "Butler's Pantry," "Laundry," and "Engine." The house is heated by a "Furnace," which is also a "Sugar Manufactory." Nor is the house without mystery, for it contains a number of "Mysterious Chambers." It is protected by a wonderful "Burglar Alarm" and watched over by various "Guardians." A pair of charming "Windows" adorn the "Façade," and a "Whispering Gallery" offers a delightful labyrinth for our wanderings.

In fact, the book is more wonderful than a fairy tale, more intensely interesting than a romance, and more replete with valuable truths than any book of the present day.

The authors—husband and wife—are both regular physicians, and besides graduating in the best schools of America, spent three years under the best instructors in Vienna, Paris, and London.

But teachers will ask, Is it adapted to our schools? And we can best answer this question by saying that Prof. Foster, Superintendent of the Ithaca Schools, has read the manuscript and writes as follows:

OFFICE OF THE BOARD OF EDUCATION, Ithaca, N. Y., July 2, 1884.

TO WHOM IT MAY CONCERN: The subscriber has read with much pleasure nearly all the copy for a new work on physiology and hygiene, entitled "The Man Wonderful in the House Beautiful," by the Drs. Allen, representing the human body to be the house beautiful, with its doors, windows, rooms, furniture, servants, etc., etc., and the mind to be the man wonderful in possession. They have admirably succeeded in weaving into the several chapters the important facts of physiology and hygiene in such a skillful manner as to make very pleasant reading, and to arouse and hold the interest of the reader, while at the same time, the facts of the subject are rendered very clear and easily understood. The chapters on alcohol and narcotics are especially to be commended, as they make the work excellently adapted to meet the requirements of the recent law, requiring instruction in physiology and hygiene, with reference to the effects of alcohol and narcotics. In my opinion, this book, if suitably illustrated and printed, will make a much better work on the subjects treated of, for use in the grammar grades of our public schools, as well as for general reading, than any now before the public.

L. C. FOSTER, Superintendent of Schools.

The authors have been teachers and know what will aid both teacher and scholar, and they have kept in mind the fact that many teachers will be called upon to teach these subjects who will feel the need of aids, and they will find them in the questions which are so arranged with exponents in the text that the lessons are easily comprehended.

The book will be sent by mail, post-paid, on receipt of price, \$1.50. Agents wanted, to whom special terms will be given. Address

FOWLER & WELLS CO., Publishers, 753 Broadway, N. Y.

Old Series, Vol. 79
Oct., 1884.

KNOW THYSELF

New Series, Vol. 30
NUMBER 4.

PHRENOLOGICAL JOURNAL



A Monthly devoted to the study of man in his mental and physical relations.

TERMS: For 1 year, \$2; 6 months, \$1; Single Numbers 20 cts.

CONTENTS.

I. The Candidates of Reform—Benjamin F. Butler; John P. St. John. Portraits	185
II. The Christian Church: Its History and Divisions	192
III. Cranial Affinities of Men and Apes (concluded)	196
IV. Organic Cerebration, V.; THE SELFISH PROPENSITIES	206
V. Two Eminent British Scientists—Sir Wm. Thomson; Sir Lyon Playfair. Portraits	209
VI. The Ineffaceable Record of our Lives	211
VII. "Rather Strange!"	214
VIII. Delia and Blanche (concluded)	218
IX. True Love and Blind Passion	222
X. The Function of Taste	226
XI. Cholera and Uncleanliness	228

Notes in Science and Agriculture.—The Nature of Phosphorescence; The

Dawn of Mind; Opening of an Electric Street Railroad; Setting of Plaster of Paris; The New Orleans Exposition; A Phosphorescent Eye-piece; Tea Culture in the South; Origin of the Orange; Nationality of Emigrants; Comparative Production from Potato-Eyes, etc., etc. 233

Poetry.—Aspirations; Teach Me to Live; A Good Druggist; Ode to the Cucumber.

Editorial Items.—The Antecedents of Phrenology, No. 2; Arctic Expeditions, their Honor and Results; Political Liberty; Responsibility for Sin; A Word, etc. 237

Answers to Correspondents.—Herbert Spencer's Creed; A Well-balanced Head; Inductive Reasoning; Food as Medicine; Learning How to Think; "Adam's Apple"; Instinct Immortal? WHAT THEY SAY.—Happiness and Intellect; "To the Light," poem; Disposition and Organization, etc., etc. 243

Personal.—Wisdom.—Mirth.—Library.

ENTERED AT THE POST-OFFICE AT NEW YORK AS SECOND-CLASS MATTER.

FOWLER & WELLS CO., Publishers, 753 Broadway, New York.

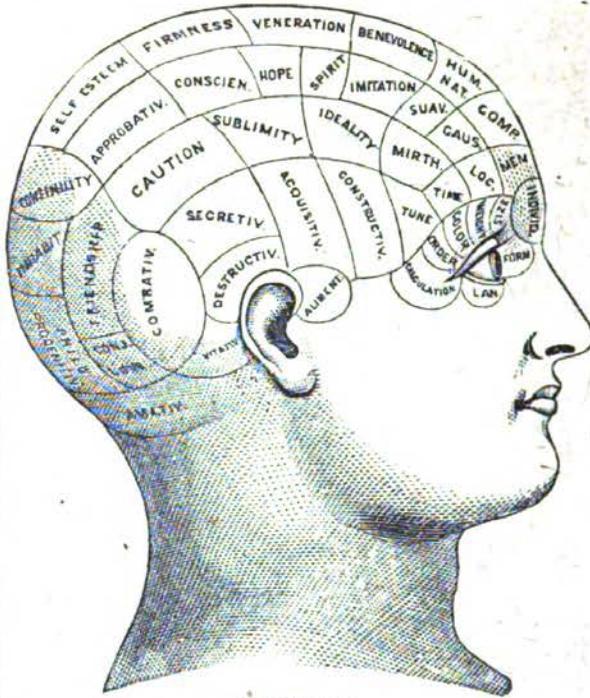
L. N. FOWLER, Imperial Buildings, London, England.

THREE MONTHS FREE to New Subscribers for 1885

A Choice of Premiums.

THE DISEASES OF MODERN LIFE.

A work on the avoidable causes of Disease. By Benjamin W. Richardson, one of the most widely known of English physicians. 12mo, extra cloth, 500 pages. \$1.50. One of the most important Health books ever published. It treats most fully of prevention of disease, by pointing out in a simple and practical manner the avoidable causes. We have arranged for a large Edition of this work as a Premium, and a copy in large type bound in extra fine cloth is offered to each subscriber to THE PHRENOLOGICAL JOURNAL, or we will give the Bust Premium.



This bust is made of Plaster of Paris, and so lettered as to show the exact location of each of the Phrenological Organs. The head is nearly life-size, and very ornamental, deserving a place on the center-table or parlor, in parlor, office, or study, and until recently has sold for \$200. This, with the illustrated key which accompanies each Bust, should be in the hands of all who would know "How to Read CHARACTER." It is now offered as a Premium to each yearly subscriber to THE PHRENOLOGICAL JOURNAL, or we will send the Book Premium.

THE PHRENOLOGICAL BUST.

THE

PHRENOLOGICAL JOURNAL

Is widely known in America and Europe, having been before the reading world nearly fifty years, and occupying a place in literature exclusively its own, viz., the study of HUMAN NATURE in all its phases, including Phrenology, Physiognomy, Ethnology, Physiology, etc., together with the "SCIENCE OF HEALTH," and no expense will be spared to make it the best publication for general circulation, tending always to make men better physically, mentally, and morally. Parents should read the JOURNAL, that they may better know how to govern and train their children. Young people should read the JOURNAL, that they may make the most of themselves. It has long met with the hearty approval of the press and the people.

N. Y. Tribune says: "Few works will better repay perusal in the family than this rich storehouse of instruction, which never fails to illustrate the practical philosophy of life, with its lively expositions, appropriate anecdotes, and agreeable sketches of distinguished individuals."

N. Y. Times says: "THE PHRENOLOGICAL JOURNAL proves that the increasing years of a periodical is no reason for its lessening its enterprise or for diminishing its abundance of interesting matter. If all magazines increased in merit as steadily as THE PHRENOLOGICAL JOURNAL, they would deserve in time to show equal evidences of popularity."

Christian Union says: "It is well known as a popular storehouse for useful thought. It teaches men to know themselves, and constantly presents matters of the highest interest to intelligent readers, and has the advantage of having always been not only 'up with the times,' but a little in advance. Its popularity shows the result of enterprise and brains."

Sunday-School Times says: "A great amount and variety of useful and instructive matter finds its way into this PHRENOLOGICAL monthly. It is progressive and liberal, in the good sense of those terms—readable, valuable journal."

TERMS.

The JOURNAL is published monthly at \$2.00 a year, or 20 cents a Number. To each yearly subscriber is given either the BUST or BOOK Premium described above. When the Premiums are sent, 25 cents extra must be received with each subscription to pay postage on the JOURNAL and the expense of boxing and packing the Bust, which will be sent by express, or No. 2, a smaller size, or the Book Premium, will be sent by mail, post-paid.

Send amount in P. O. Orders, P. N., Drafts on New York, or in Registered Letters. Postage-stamps will be received. AGENTS WANTED. Send 10 cents for specimen Number, Premium List, Posters, etc. Address

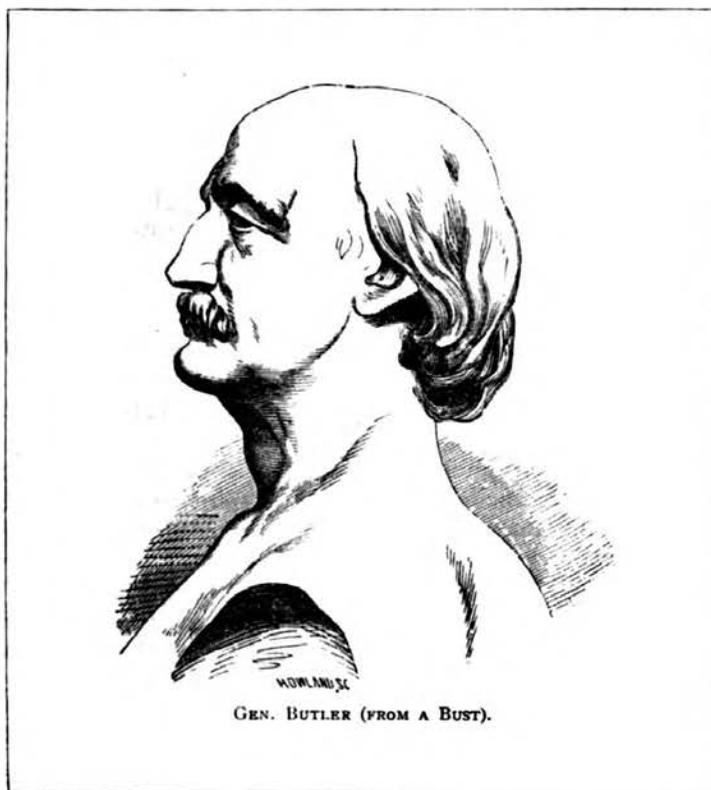
FOWLER & WELLS CO., Publishers, 753 Broadway, New York.



NUMBER 4.]

October, 1884.

[WHOLE No. 550.



THE CANDIDATES OF REFORM.

BENJAMIN F. BUTLER—JOHN P. ST. JOHN.

BESIDES the two great political organizations, the Republican and Democratic, that command the lion's share of public attention by their rivalry and strife for Government control and the emoluments that are associated with office-holding, there are two or three minor parties or factions that maintain sufficient activity to remind the great popular

masses now and then that they are alive. One of these is known as the Greenback or Paper Currency party; another is the Temperance or Prohibition party; still another, of recent evolution, is the Anti-Monopoly party. This last may be thought a small affair, but it has shown no little vigor and growth, and in the present contest for the Presidency has

united its fortunes with the Greenback interest. The Temperance movement is much older than the two others, and has grown from year to year into greater dimensions, until now its supporters are numerically strong enough to make success certain for that one of the two great political divisions to which it may, if ever, ally itself. A bid, therefore, for the Temperance vote is a not unusual feature in the strife between Democrats and Republicans. The Anti-Monopoly party was earliest in the field with its candidates for President and Vice-President,—a convention having been called at Chicago, on the 14th of May, and Benjamin F. Butler, of Massachusetts, formally chosen as its candidate for the executive chair at Washington. The party did not make so liberal display of strength at this convention as was expected, notwithstanding the lively discussions that had been going on East and West, regarding the relations of labor and capital; nevertheless the fact of two hundred men from different parts of the Union meeting in solemn conclave at an appointed time is a deliberate notice to the world that there is a decided movement among the people for the protection of the interests of the workman, and for the assertion of private rights that have been somewhat lost sight of in the wholesale legislation for great corporate enterprises, or in behalf of individuals possessed of extraordinary wealth and vaulting ambition.

The party for Temperance and moral reform met in solemn assemblage at Pittsburgh, Pa., on July 23d and 24th, and selected for its banner, John P. St. John, of Kansas, and William Daniel, of Maryland. This action signifies that the men already held up by their party followers to the gaze of the American people do not meet the requirement of the Temperance creed, and, therefore, may not be supported by the opponents of the traffic in alcoholic beverages. It was noticeable that in this convention women were permitted to take part, and earnest expression was made by the delegates as a

whole in acknowledgment of the great work done by women for social and political reform. This was graceful, and as it should have been, for our earnest, public-spirited women deserve the full recognition of the people whether it be through their male representatives in a political or social capacity, or by an extension of the full rights of citizenship, that would only be in accord with even justice.

BENJAMIN F. BUTLER.

Ben. Butler is a large man; he is broadly built, strong in the spinal column, staunch in limb, with a deep chest, and indicating in nearly every respect the possession of the essential elements of robust health and endurance. He is a strong man in brain as well as body, quick of perception, sharp, emphatic, earnest, and thorough-going, having a great deal of excitability, yet self-poised and not what is commonly known as nervous, fidgety, or fussy. His head is very broad between the ears, and exceedingly heavy in the base, indicating extraordinary executive capabilities, great positiveness of character, determination, and the spirit to carry out his purposes to the very end, even if it be against bitter opposition.

Our portraits represent him in profile, one engraved twenty years ago, the other last year. How little change there has been in essentials of physiognomy during that time! The changes have been those incident to such a temperament when the man has passed middle life. The whole contour impresses the observer who knows anything about physiognomy that the subject has power of mind, grasp, and breadth, and strength of intellect. The head is very large in circumference, much above the average in length anterior to the opening of the ear; and it is relatively high at the crown in the region of Firmness, while not high in general proportions. It is an irregular head, and indicates the possession of special capacities; not an organization that is distinguished for smoothness

evenness, harmony, and so on; but an organization that has its emphatic, prominent peculiarities and eccentricities, and which are known and read by all intelligent observers.

The perceptive organs, how marked they are! indicating fullness and readiness of impression, ability to pack away facts in great number, and have them at command when needed for application.

Comparison is large, especially, among the organs of the upper intellect; the head is also very broad in the forehead, and very full in the temporal region, showing that he is practical, pertinent, positive, and matter-of-fact in the use of his intellect.

One glances instinctively from the large Firmness to the strongly-marked Roman nose, finding an apposition in their showings of strong Firmness, steadfastness, and resolution. The large chin corresponds with the fullness of the back-head, and shows warmth of social feeling, affection, strong passion. It would be impossible for one organized as this man is to live inertly, passively, in the background; he must be prominent in the sphere, whatever it is, into which he is thrown. He is not the creature of circumstances but the one to rule circumstances, and convert them to his purposes; he would be independent of influences; and, instead of being subject, would from the first, strive to render others subject and make his influence predominant. Self-reliance, decision, executiveness, push, are stamped everywhere upon the head and face. He can be accommodating and kind, even sympathetic, but he would not concede a point or grant a favor simply as a matter of accommodation. The sense of utility is such, that he would impress in some way, with the giving of a favor, himself upon the act and upon the recipient; he would have him who is benefited be benefited in a useful and lasting fashion.

He is emphatically a man of the world, with great vital tenacity, fondness for society, appreciation of home and the domestic relation, highly appreciative of

woman, and fond of the good creature comforts of life. Living in a middle plane, he is yet not content to live in a physical way, merely; having ambition, and purpose to achieve reputation, and that through real work.

He is an original thinker, and an original executor, with Caution and Secretiveness enough to render him politic in whatever he undertakes; and with tact and sagacity to take successful charge of circumstances, and if necessary he can be cunning in order to secure his ends without embarrassing himself.

A writer once said of him, that his organization is adapted to emergencies, that there is "enough of the gladiator in



BENJAMIN F. BUTLER AT 65.

him to overcome all obstacles and difficulties, be they mental or physical; and he would rather travel a road that has variety and danger in it, than one which is safe, flat, and monotonous."

General Butler is a marked man; of extraordinary individuality; probably there is no other character of prominence before the country that is viewed in so many lines and from so many points of view by different people.

Benjamin Franklin Butler was born in Deerfield, New Hampshire, on the 5th of November, 1818. His father was a soldier under Gen. Jackson, and it was but natural that as a boy, he should have shown a disposition for military life, and looked forward to study at West Point; but a pious mother willed otherwise, and

sent him to Waterville College in Maine. There he worked his way through, supporting himself by teaching, and finally left college, in debt, and in ill health. But a cruise on a sailing vessel to Labrador re-established strength, and after returning home, he entered a law office in Lowell, Mass. Soon afterward, he joined the City Guard, a company that at a later time was a part of the Sixth Regiment of Massachusetts Militia, that became famous by its march through Baltimore in the spring of 1861.

He was a hard student of law, and became an industrious practitioner, winning attention and advancement; but his love for the life of a soldier made him an enthusiastic militia-man, and he passed from grade to grade of official position. He took a part in politics as a sturdy, unflinching Democrat, rather liking, it may be suspected, the attitude of opposition that comes from being related to a minority in the controversies of politics. At any rate, it seems to have given much scope to his native pugnacity. After the election of Mr. Lincoln, Butler went to Washington, where he conferred with Southerners whom he found determined on secession. He told them the North would fight against their withdrawal from the Union, but they laughed at him. He declared that if the South rebelled, there would be an end of slavery; and he assured them that if matters came to so serious a pass, he would espouse the cause of the Union. It should be said here that he was elected as early as in 1853 to the Massachusetts Legislature, and in 1859 to the Senate of the same State, being recognized as a champion on the Democratic side. On the opening of the Civil War, he at once offered his services to the Government; and went to Governor Andrew, and advised him to put the militia of the State on a war footing. He was appointed Brigadier-General, and at the head of the first volunteers of his State, made his famous march into Maryland. Soon afterward he was commissioned as Major-General, and given the command of Fortress Mon-

roe. It was there he suggested the solution of the slavery custom, by pronouncing the negroes "contraband of war," and afterward they were known popularly as contrabands.

The battle of Great Bethel was a blunder, occasioned mostly by the inexperience of our troops, who were confused by the too complicated movements that were attempted, and this disaster to our arms for a while depreciated Gen. Butler in the esteem of the nation; he, however, won back its good opinion by his conduct in the New Orleans expedition. This undertaking was in accordance with Gen. Butler's own proposition; and the fleet under Farragut having effected an entrance to the city, Butler at once occupied it with his forces. Here he exhibited exceptional administrative powers; and while many tales have been told of his severity or his avarice by disaffected persons, it is but just to say that what was done for the community at large served an excellent purpose, and proved wise, helpful, and efficient in the end.

He was strict and severe, and strictness and severity were called for, under the circumstances; but so far as known facts are concerned, neither cruel nor revengeful. Mr. Parton, in his biography of Gen. Butler, relates an incident to this effect: On the occasion of a visit of the Mayor to the head-quarters, there was a turbulent assemblage in the street. The Mayor and his party had not been long in the presence of Gen. Butler, when an aide-de-camp rushed in and said:

"Gen. Williams orders me to say that he fears he will not be able to control the mob."

Gen. Butler in his serenest manner replied: "Give my compliments to Gen. Williams, and tell him, if he finds he can not control the mob, to open upon them with artillery."

The Mayor and his friends sprang to their feet in consternation. "Do not do that," exclaimed the Mayor.

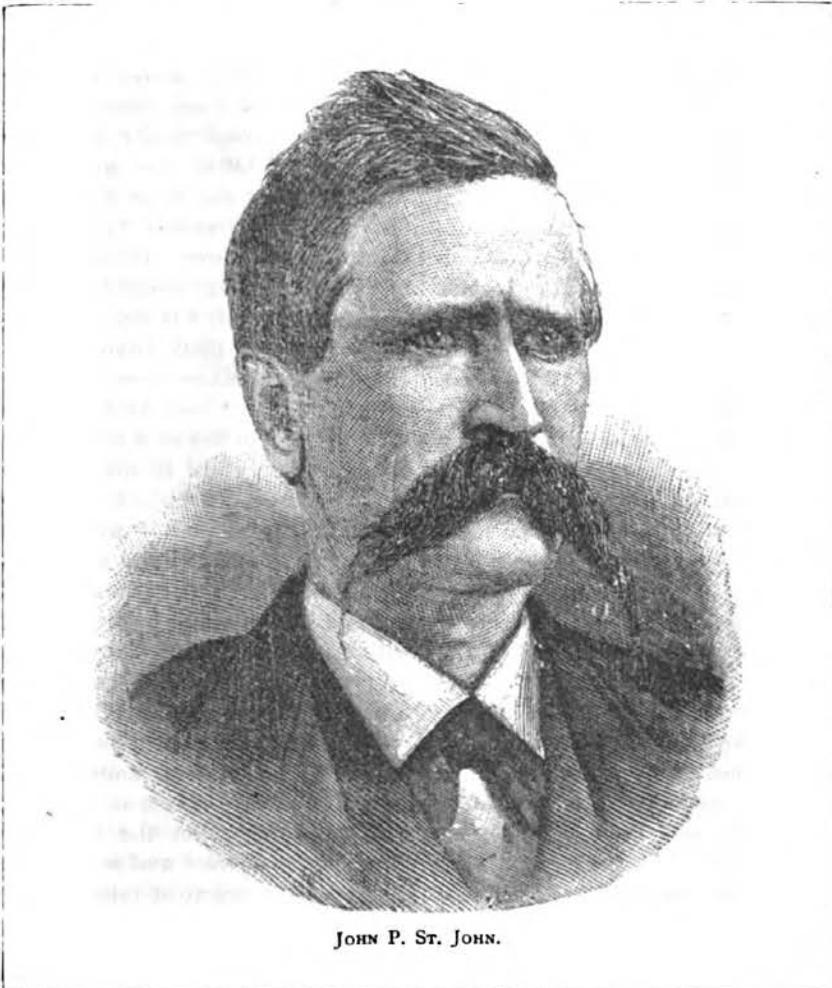
"Why not?" said the General; "the mob must be controlled; we can not have a disturbance in the streets."

"Shall I go out and speak to the people?" asked the Mayor.

"Anything you please," replied Gen. Butler; "I only insist that order be maintained in the public streets."

The Mayor and other gentlemen addressed the crowd, and as their remarks

times, and at all times taking conspicuous rank in the discussion of important measures. In 1871 he was nominated to the office of Governor of Massachusetts, but without success. In the fall of 1882 he was nominated again, and this time was elected by a large majority.



JOHN P. ST. JOHN.

were enforced by the rumor of Gen. Butler's order, there was a temporary lull in the storm; the crowd remained, however, vast, fierce, and sullen.

Later in the war he was given important commands; one being that of the department of North Carolina, including Fortress Monroe and a portion of Virginia. In 1866 he was elected on the Republican ticket a member of Congress, and was returned to his seat several

JOHN P. ST. JOHN.

To the phrenologist and physiognomist this portrait has an expression that may be embodied in three words—earnestness, sincerity, severity. Of course a photograph from which a good engraving is made must necessarily have, or generally does have, from necessity, a certain fixed expression that can hardly be natural; a lack of mobility and mellowness which is

seen in real life, except under some special stress of thought, and feeling, and purpose; then this fixed, hard, relentless expression is seen.

Those clean-cut features indicate activity of body and mind, and the tendency to be specific and critical. The faults which he sees in people stand out like thorns; they are not round-top warts; they are like needles. His preferences and prejudices are marked; if he likes a man, he "goes for" him with such hearty earnestness that his friends can count on him always and everywhere. When he forms a prejudice, or feels that he has just cause against a man or subject, he is relentless in his earnest endeavor to hedge up the way and baffle the thing opposed.

In that large development of the perceptive organs—we mean the prominence clear across the brow—there seems to be a cutting-edged severity; a feeling of analysis and criticism; as if he were looking through and through subjects, as we look through plate-glass, to learn if peradventure there may be a stain or a flaw in it.

The expression across the lower part of the brow, and up the centre of the forehead, and that fixedness of the eye, and that general unmellowness of the whole face make one think of an inspector, whose business it is to find faults in things that he looks over, as well as to see excellencies; and if he were an inspector, nine-tenths of the people who met him the first time with articles to be inspected, and accepted or condemned, would feel that they had nothing to hope for, from any stupidity, or inattention, or want of acuteness in his perception and judgment. If he were a teacher, pupils would think that if they could pass muster with him they could pass anywhere. He must be a man of order and system; the organ is prominently indicated.

His large Comparison, indicated by the fullness in the centre of the upper part of the forehead, will make him fertile in illustrations as a writer or speaker. His knowledge of character, shown by that

sharp upper part of the forehead where it joins the hair, would make him a good detective; he would read a stranger in spite of himself; he must form opinions favorably or adversely of every person he meets. In his estimate of men, it is not how much a man knows or how great his character, but is he sincere? Does he mean what he says?

The head seems to be broad through the middle section above and about the ears, showing force, energy, prudence, economy, courage, policy, and ingenuity. He is a natural worker, and inclines to work hard at anything he attempts to do. The word "radical" in its best sense is applicable to him. If he could preach but one sermon it would be like him to take for his text, "If the Lord be God, serve Him; if Baal, then follow him." He does not halt between two opinions; he begins at the root as he understands it; and to him the root of the matter is about as important in his esteem, as, to onion-growers, the bulb is the important matter of that plant. If this man can feel that a person is right at the root; that his intentions, and purposes, and drift, and spirit are in the right direction, he will tolerate a great many things that otherwise would be uncomfortable to him. He could accept a diamond in the rough, provided it was a diamond.

His top-head seems amply developed, as if the moral organs, as a whole, were well developed; but the middle, where force, and prudence, and economy are indicated, with practical talent, and power of criticism, and ability to understand character (and all combined tend to drive him onward, right onward in the work in hand), the elements stand forth as the distinguishing characteristics of the organization.

The back-head is out of view, and he may have a fair share of the social; but he is doubtless prized by his associates for his force of character, his dauntless courage, his uncompromising firmness, pride, and ambition, and for his incisive, practical intellect.

There is in his build of head, an ex-

pression of what is apparently more of the law than of the Gospel; more of the Ten Commandments than the Sermon on the Mount; and whatever he attempts to do, believing in it, he will try to fulfil though the heavens fall.

If he had in his composition a little more of the elements of grace, mercy, and peace, he would doubtless be more companionable to the majority of men. As a soldier, he would glory in some desperate charge; and if he has not in him the spice of Custer and Kearney, with a slight seasoning of Sheridan, we are mistaken. Honor, honesty, courage, duty, sincerity, are his leading traits. Too little of the mellow, pliable, and conformatory, would apparently be his defect.

John P. St. John was born in Brockville, Franklin County, Indiana, on the 25th of February, 1833. He had few early advantages. His education was that afforded by a country school in a new settlement, but he made the most of his limited opportunities, and used every moment of leisure in perusing such books as he could procure, and thus he made himself familiar with history and biography especially. He was a mere youth when he found employment in a store, and received six dollars a month for his services. At twenty, he caught the "gold fever," and made his way to California, where he found its golden promises an illusion in his case, so he turned his hands to any honest labor to earn a living—chopping wood, cleaning decks, and serving in stores. He saved a little money, which he sent from time to time to his parents, and filled every leisure hour with study. He has himself told the story of his first departure from home, and of the vow he then made to his mother in an address:

"Poor mother was almost broken-hearted, though she did not say it. Father, a good man, a loving husband, and a kind father always, would have been better off but for his habit of imbibing too freely from the social glass; consequently things were not about home as they used to be before this fault had over-

taken him. Mother was not so cheerful and happy as formerly, although she never spoke of her fears and secret sorrow; yet I saw it all, and, boy as I was, I hated the demon drink that had made such a change in my father, and broken the heart of my mother, and darkened the home of my boyhood. I resolved that the disastrous poison should never pass my lips, and that anything I could say or do should be done to put the blighting curse from other homes. Mother called me to her and said, 'John, my son, promise me you will always be a man wherever you go.' I made that promise, and wherever I have been, and however tempted to go astray or to do anything I knew that my mother would not approve, that promise kept me right."

During his stay on the Pacific Coast he made voyages to South America, Mexico, Central America, and the Sandwich Islands. In 1853 he was engaged in the Indian wars in Northern California and Southern Oregon. In these campaigns he fought bravely and was twice wounded.

In the meantime he had decided to prepare for the profession of the law, and under the most adverse circumstances had made some progress toward mastering the knowledge requisite. Often he pored for hours over his text-books by the flickering light of a pine-knot in a miner's cabin. In 1860 he returned to Illinois, and continued his reading with the legal firm of Starkweather & McLean, in Charleston, Mo., and at the end of the year he became a member of the firm.

The outbreak of the war changed all the plans of the young lawyer. He enlisted as a private in the 68th Illinois Volunteers, and at the election of officers was unanimously chosen captain of Company C. At Alexandria he was detached from his command and assigned to duty as assistant adjutant-general. He was afterward placed in command of the troops at Camp Mattoon, Ill. Upon the reorganization of the 143d Regiment, he was elected its lieutenant-colonel. The services of that regiment were confined

mainly to the Mississippi Valley. After Lee surrendered, Col. St. John returned to the practice of law in Charleston, Mo. He soon removed to Independence, Mo., where for eight years he practiced his profession with notable success. He was at the same time always loyal to patriotism, temperance, and humanity, and gained no little celebrity as a stump orator.

In May, 1869, he crossed the border and took up his residence in the State with which he was soon to become very honorably identified. He settled at Olathe, Kansas, and proceeded to practice law. He sought no office, but office sought the man, and in 1872 he was elected to the

State Senate, where he distinguished himself as a debater and statesman. In 1878 he received the Republican nomination for Governor of the State, and was elected.

As an advocate of temperance he has long been publicly known. While Governor of Kansas, he travelled through the State making addresses in behalf of a Prohibitory Constitutional Amendment. Since the expiration of his term of office, Mr. St. John's voice has been heard in many of the States at great meetings, and as the champion of Constitutional Prohibition in the West he has won high consideration from all who wish well for the State and the people.

THE CHRISTIAN CHURCH.

ITS HISTORY AND DIVISIONS.

INTRODUCTORY.

WE have often heard surprise expressed that the general public has so little knowledge of theological matters. This is to be accounted for perhaps, or at least in part, from the fact that the information they would be glad to have is not readily obtainable. In a country with customs like ours, where so much of one's time is employed in providing for many wants that are not necessities, but little is left in which to supply the intellectual part of man with its real needs, and too many content themselves, so far as their spiritual nature is concerned, with what they receive in an occasional sermon.

A noted clergyman in Boston recently said he asked, as he casually met them, thirty-five men of his acquaintance if they had ever read the Bible through. They were all men of intelligence—grown-up sons of clergymen, students, professors, literary men. One replied, he "believed his mother put him through it when he was a child." The others said they had not. Such a statement seems astonishing; but ask the first thirty-five church-members you meet what they know of the history of the Christian Church, and of the denomination to which they belong, and of its creed or belief, with the reasons therefor, and you will doubtless be surprised at their replies and the meagreness of their information in these respects.

In the space at our command in the pages of this JOURNAL, we can not hope to give more than a mere outline or summary of the subjects treated; but even in this some readers may find records of facts with which they were not before acquainted, and become sufficiently interested to pursue their inquiries. What we shall write of early times will be without prejudice, bias, or bigotry. That all records of history are full of errors is well known. Doubtless the authorities from which we shall draw our facts and conclusions have their share. We shall indulge in no speculations, our earnest endeavor being to put briefly before the readers what we find, advising them to "prove all things; hold fast that which is good."

THE EARLY CHURCH.

The first followers of Jesus were only a sect protesting against the corruptions of the priesthood and the wickedness of the people. They believed He was the Messiah long expected, and that so soon as, by repentance and reform, the Jewish nation became worthy, the Roman power would be overthrown and the government restored to them. We find in the gospels no record that leads us to believe that in the beginning was there thought of anything more than tempo-

ralities. Spiritual matters had not received their attention. They continued to worship in the synagogues after the manner of their fathers. But soon the precepts and teachings of Jesus had inculcated a principle of right living in His disciples, and the good seed began to bear fruit. Jesus had not been slow to declaim against the errors of the times, particularly those of the Pharisees, Sadducees, and some other sects, who, when the number of believers was small, thought them little worthy of attention. But when on and immediately after the day of Pentecost, the converts to the new doctrine were numbered by thousands, "and a great company of the priests were obedient to the faith," they became jealous and antagonistic. Persecutions were commenced; Stephen was stoned to death. This action on the part of their opponents called attention to the new sect, and accessions to its ranks were rapid and continuous. Among others, Paul, before a persecutor, now joined it, and the new sect was fairly established. The Christians withdrew from the synagogues, and established organizations of their own, called churches.

Most of the early history of the church is unfortunately lost. The records given us in the New Testament are too meagre to admit of our arriving at very definite conclusions. The disciples doubtless had at first the controlling power or influence where they were; but as other churches were formed, elders, priests, or presbyters were appointed to advise and keep order. They were men noted for uprightness of character, to whom others could look with reverence and respect, and whose opinions and advice were believed to be sound and useful. The presbyters in larger towns were usually chosen to preside at meetings of the churches of a province or neighborhood when gathered to consider important matters of mutual interest, thus becoming presiding elders—and to them was applied the term *episcopus*, meaning president, overseer, bishop. Far into the second century the terms presbyter

and bishop seem to have been interchangeable; but Cyprian taught, by what authority we are not told, that Christ communicated the Holy Ghost to His disciples and the apostles, and they again to those they appointed to preside over congregations, and these in turn ordained bishops, who were higher in order, and from whose decision there could be no appeal, as such would be an appeal against the judgments of God and Christ.

Titus was made a bishop by Paul, and appointed "to set in order the things that are wanting, and ordain elders in every city." The bishop was the highest ecclesiastical officer in apostolic times. For the character and qualifications of persons considered fit to fill the place, see the first chapter of the Epistle to Titus, and the third chapter of the first Epistle to Timothy. In later times and until late in the fifth century, both elders and bishops were elected by the votes of the churches or congregations.

During the life of Jesus, and for some time after His death, the property of the disciples and other believers was held in common. Complaint having been made relative to the distribution of funds to some widows and orphans, seven of the brethren were named to superintend the future distribution of such funds. They were appointed by the multitude of disciples, and brought before the apostles, who prayed and laid hands on them. These brethren were called deacons, from a Greek work signifying to supply or minister. Some women were afterward chosen to this position.

As the doctrines taught by Jesus and the disciples spread to other countries, they were gladly received, and many, not Jews, acknowledged belief in their truth. Differences of opinion arose as to whether any but Jews, or those who would conform to Jewish rites and ceremonies, should be admitted to fellowship. Paul, who seems never to have been directly associated with the disciples, held that the new sect should not be governed by Judaical laws. He began immediately after his conversion, to preach in his own

way, and never asked or received from those at Jerusalem advice or counsel.

The question was so much discussed in the various churches, that finally it was "determined that Paul and Barnabas, and certain other of them, should go up to Jerusalem unto the apostles and elders about this question." The council was held, the matter fully discussed, and the determination reached that the Gentiles in the churches should only be required to "abstain from meats offered to idols, from blood, from things strangled, and from fornication." This was done seventeen years after the death of Jesus, and is the more noticeable, not only because it was the first council, but because its acts made the first definite separation between Christianity and Judaism. This same council appointed Paul an apostle to the Gentiles, and Peter to continue his labors among the Jews. Thus began the obedience to the command of Jesus, "Go ye into all the world, and preach the Gospel to every creature." Soon believers could be found in all parts from Rome to Babylon. Converts were made from all classes, and were gathered into the church, taking with them many of the various beliefs they had formed in consequence of the teachings of those with whom they had been associated. These beliefs differed much, not only from the doctrines the apostles were endeavoring to promulgate, but from each other, and caused much difficulty and dissension. Meanwhile the Jews in Jerusalem and thereabouts exerted themselves against the new religion, and warned their brethren in all the countries where Christianity was being introduced to beware of the apostate Jews and heretical Gentiles.

As men of intellect and genius became interested in the new teachings, they could not fail to be convinced by the reasonableness of the doctrines and the many truths presented; but they brought with them the errors before received from the teachings of the wisest in the world as well as many of their own imaginings. In this way many of the

churches became so filled with paganism as to bear little resemblance to the original, and for a time the teachings of Jesus were in some, fairly subordinate to those of the Grecian philosophers. But this state of things could not last. Christianity having its foundation in truth could not fail, and although through all the ages it has had to carry an incubus of error from which it is not yet entirely free, it will in the end rise above all its opponents, and the whole world will receive it as the truth.

We may note briefly how some, called the "fathers" of the church, were hampered by their early education, and at the same time see how some of the now leading doctrines of the Christian Church were first brought into prominence.

JUSTIN, called the martyr, was of Grecian parentage, and a believer in the doctrines of Plato, among which was that there was one supreme being; that from him came the Logos, or word, by which the earth was created, and by means of which the souls of men were enabled to perceive truth. He believed that he discerned in Jesus this Logos, and also that He was the one to whom God is said to have spoken at various times. No such idea of Jesus seems to have before been held, or at least taught. This was only one of the many Platonic ideas Justin incorporated with the beliefs of the earlier Christians, but it was perhaps the most prominent. He taught about the year 140.

THEOPHILUS, bishop of Antioch, also taught that the Logos of Plato was manifested in Jesus.

CLEMENT, bishop of Alexandria, one of the foremost of Christian teachers, had much respect for the philosophers, although he said he espoused not this or that sect, but followed what he believed to be right in all.

ORIGEN was instructed in Christianity by his father, and was a pupil of Clement. He was thoroughly imbued with the Grecian philosophy, but differed from it in believing in the personality of God, instead of an impersonal being without

consciousness, from whom all other beings emanated by a natural law. The Holy Spirit he thought was the divine energy, and with the Son was exalted above all other beings as the Father was above them, and that Jesus was a perfect human being endowed with supernatural power by the Logos.

It would be interesting to give at length the many doctrines originally held by the fathers that were not in accord with those of the primitive church, but we will only add, that while they were among the wisest and best men of their times, they were full of the erroneous beliefs of their time and country: such as the existence of demons or devils, the offspring of angels and women, that could be exorcised by prayer or the repetition of passages of Scripture. Their credulity was very great. It is hardly conceivable that men so given to thought and reasoning should have received as true so many statements that appear to us to have been without any foundation, but merely the result of vivid imagination.

The introduction of these various beliefs and opinions caused dissensions and the formation of various sects, the disagreements among which caused much difficulty. Among the most noted of these sects was the Arian, which, as it has exerted an influence to the present time, we should not fail to notice.

The Platonic idea of the Logos before spoken of came to be generally received, as well as the belief that Jesus was this Logos. Then arose questions as to the character of the Logos. Had Jesus an existence before His human birth; was He a divine attribute, clothed in a human form, and thus a part of God?

Was He begotten or created, or were, as Sabellius taught, Father, Son, and Holy Ghost not persons, but different manifestations of one God? These and other similar questions had been long and warmly discussed. About the year 318, Arius, a presbyter of the church in Alexandria, endeavoring to refute Sabellius, held that the Father alone was self-existent; that He had created the Son

ages before the world was made; that the Son was the Logos, vastly superior to all other beings; that this Son or Logos created the Holy Spirit, which was subservient to Him. How a being who was born, lived, suffered, and died like a man could at the same time be God, was a question the church had long endeavored to settle. The position taken by Arius was soon combated, and the whole Christian world was engaged in the controversy; and after a struggle of six years the Council of Nice was called. Here 318 bishops assembled, besides many presbyters and deacons. Among the most noted opponents of Arius was Athanasius. He formulated a doctrine or creed, that is, with little change, still known as the Nicene or Athanasian Creed, which after a discussion of two months, was adopted by the Council as the rule of faith by which the Christian Church should be governed.

This contained the statement that Christ "was begotten, not made," and consubstantive with the Father; that there was an indissoluble union between the perfect God and a perfect man; that this mode of existence was unexplainable, and must be believed, not understood. This Council of Nice is a conspicuous point in church history, not only because it was the culmination of the first real battle of the churches on points of faith, but also because from its time admission to all Christian Churches, with few exceptions, is had only by subscribing to articles of belief prepared by the clergy.

Notwithstanding its defeat in the Council, Arianism continued to spread, and had friends high in power. Arius, who had been anathematized by the Council and banished by the emperor, sought conciliation, and wrote another confession of faith, made up mostly of Scripture texts. This, although very differently understood by others, was by Constantine accepted as an agreement on the part of Arius with the Nicene Creed, who was recalled to Constantinople, where the bishop was commanded to administer to him the sacrament. The bishop seemed

inclined to disobey; a collision was imminent, but the sudden death of Arius put an end to the controversy.

While these two sects were thus warring, others were holding views different from either. The Gnostics supposed Jesus to be a man so pure that some divinely-emanating spirit had taken possession of His soul at baptism. Artemon at Rome taught that Christ was a mere man, but born of a virgin, and excelling the prophets in virtue. Paul, bishop of Antioch, taught that wisdom, a divine attribute, operated in Jesus to a greater extent than in any other, so that He was the Son of God in a sense that no other man ever was, but denied that He had an existence before His human birth; the bishops of Ancyra and Sesamum were deposed for teaching similar doctrines in the fourth

century. All these referred to the gospels for authority, that portion of John's gospel relating to the Logos being believed by them, as it is by many scholars at the present time, to be an interpolation.

Although combated by the churches, the doctrines of these men found lodgement in many minds, and notwithstanding they were put down by power, and expression of their ideas forbidden, the thought has lived through the ages, and even now there are those who read the Nicene Creed only to doubt if both Arius and Athanasius were not mistaken, and search the Scriptures for more light.

Let us leave here for a while the history of doctrines, faiths, and beliefs, and trace the growth of the churches and their relations with Government.

L. A. R.

CRANIAL AFFINITIES OF MEN AND APES.

A LECTURE BY R. VIRCHOW.

(Concluded)

TO the further development and perfection of this theory, another new science, born of the German mind, contributed—I mean Comparative Anatomy, the creation of a quiet Tübingen scholar, Kiehmeyer, the teacher of the celebrated French zoologist, Cuvier. Based on the principles of this science, the relation of man to the higher animals, since that time classed under the term vertebrate animals, has appeared in quite a new light. It has become an accepted fact, that there is to be recognized a *common plan*, not alone in the structure of perfectly matured animals—which till then had almost alone formed the object of the scientific discussion of the systematians,—but to a greater extent, of those which are in a state of development. From the simplest form of the microscopic egg onwards, through a regular succession of formations, of which one proceeds from the other without interruption, we come to the complete organism. The

higher the scale of development which we take as our standard in the history of the individual organisms, and the nearer it is to reaching its highest development, the more varied appear these single organisms. Family is distinguished from family, genus from genus, species from species, individual from individual. Reversely, the further backward we trace the single organisms to their beginnings, the fewer stages of their development they have passed through, the greater are the resemblances between the individuals, the species of the genera, even between the grand divisions or families of the class of vertebrate animals. All development is therefore a process of differentiation, and every higher animal organism resembles, at a lower period of its growth, an inferior organism.

Even the contemporaries of Goethe recognized this fact in its whole significance, and they stated it in stronger terms than we are accustomed to do. In the year

1812, the acute Halle anatomist, Johann Friedrich Meckel, wrote: "The same regular scale of development which we find in the entire animal world,—whose members are the different races and classes, as well as the extremes of the lowest animals on the one hand, and the highest on the other,—is seen in the development of every higher animal; for from the moment of its existence on to the period of its perfection, as well in regard to its internal as its external organization, it essentially passes through all the forms which constitute the permanent condition of all those animals standing immediately below it. The series of these forms are more numerous the more perfect the animal is; since with every class beneath it in development their number is necessarily increased."* It is true that Meckel adds: "It is not probable, at least not proved by observation, that a lower animal can push itself beyond its class, and assume a higher form." But he has taken pains to show by numerous examples, that by stoppages in development, the organs of every higher animal, either as a whole or individually, can be stopped at lower grades, and then can resemble corresponding, lower animals. I have hardly need to add that he does not distinguish man from the other animals in this respect.

In fact there are cases recorded where men have had a certain similarity to animals (*theromorphy*). The legendary history of all nations is full of such narratives. The story of the beautiful Melusina, as well as numerous parts of Egyptian and Grecian mythology, can serve as examples. We find on the one side the animal resemblance of man, and again the human resemblance (*Anthropomorphy*) of many animals, especially of the ape. After these observations were verified, what lay nearer than the thought that man descended from the ape? This idea, long expressed with diffidence, and with reference to the black race, by the

slave-owners in the Southern States of America, gradually gathered greater certainty, and, growing bolder, has found many adherents in Europe, when, through



Fig. 4.—THE GORILLA AT HOME.

Darwin's celebrated book on the "Origin of Species" (1859), the notion of a progressive development of organic nature from the lowest to the highest forms has

* Joh. Fried. Meckel, *Handbuch der pathologischen-anatomie*. Leipzig, 1812. Vol. I., p. 123.

ever become more and more popular. Darwin himself has not pushed his system so far as to trace the ancestors of Man to Apes, as has been done by Carl Vogt, Huxley, Haeckel,* and others.

I must here, however, refute a widespread error. No naturalist has as yet asserted that any one of the species of apes now living and known is the ancestor of Man. In America there are no anthropoid (humanlike) apes, in the strict sense. Such are found only in Africa and Asia; in the former, the Chimpanzee and the Gorilla; and in the latter, the Orang and the Gibbon. True, a number of American writers,† even before Darwin, have laid especial stress upon the fact,

can apes, as the Negritos of the Sunda Islands have with the Asiatic apes. But even Vogt has not said that the gorilla or the chimpanzee is the ancestor of the negro, or that any particular Asiatic ape is the ancestor of the Negritos or the Malays.

In fact, the bodily development of the ape shows a remarkable fact, that the resemblance of young apes to human children is very much greater than that of the old ape to grown-up and fully-developed men. The mother who calls her child a "little monkey" involuntarily bears witness to the fact that the human child bears within or upon it certain animal features. Nowhere does the analogy appear stronger than in

the construction of the skull. The small size of, and especially the prominence of, the bones of the face, especially the jaw-bones, the softer conformation of the eye and its surrounding parts, the smooth vaulting of the skull-roof, the general form of the skull-cap, the relation of the cranial vertebræ one to the other, bring the head of the baby ape so near that of the human infant, that the resemblance can be called "horrifying."

But with every additional month and year of life the skull of the ape, even those most resembling man, becomes constantly more dissimilar to the human cranium.

Let us look at the head of the gorilla, which has of late years become so celebrated, whose home is in southwestern tropical Africa. The full-grown animal has a tremendous head (Fig. 4). But what is there developed is not the skull-cap proper—the receptacle and, at the same time, the measure of the brain—but rather the outer bony appurtenances. The monstrous jaw-bone protrudes in repulsive ugliness, in mass greater than the whole of the remainder of the skull. The lower jaw, in its great breadth and strength, attests the strength and size of

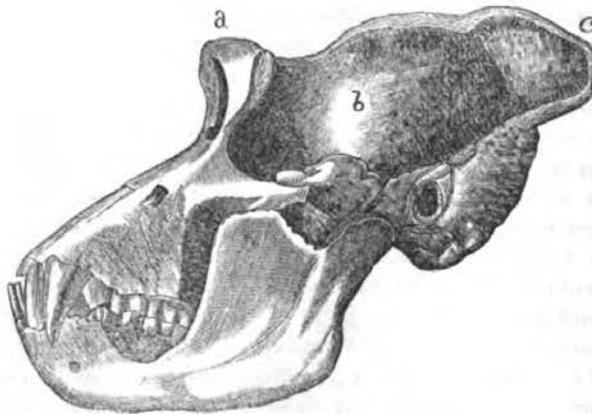


Fig. 5.—SKULL OF A GORILLA.

that the zones in which these apes are found are also the homes of very low organized races of men, and that both offer striking parallels; for example, the complexion and conformation of the facial lines. They have deduced an analogous variety of origins for men and apes; and the conclusion that Vogt drew seemed to him evident, viz., that the negroes have one and the same origin with the Afri-

* Carl Vogt, *Vorlesungen über den Menschen*. Gies-sen, 1863, Vol II., p. 260, 276.—Huxley, *Zeugnisse für die Stellung des Menschen in der Natur*. Braunschweig, 1863, p. 120.—E. Haeckel, *Ueber die Entstehung und den Stammbaum des Menschengeschlechts*, 1868.

† J. C. Nott and Geo. R. Gliddon, *Indigenous Races of the Earth*. Philadelphia, 1857. p. xiv, pp. 548, 646, 650.

the masticating muscles, which are inserted in them. Corresponding to the jaw is the extent and arch of the cheek-

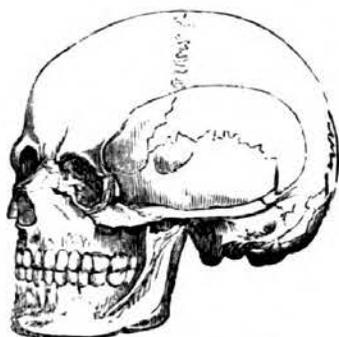


Fig. 6.—HUMAN SKULL.

bone, under which these muscles pass in order to be inserted in the skull. While, however, in man they only occupy the neighborhood of the temples and the lateral part of the parietal bone, they here cover the whole surface; and coming from both sides, almost reach the median line, along which runs a high, bony selvage, in the gorilla terminating behind, in a regular comb or crest. This crest is the visible continuation of the backbone, which, in the human skull, shows no such connected trace; it is the repetition externally of the prominent spinous process of the vertebral column. But not alone in the median line, but also backward and toward the side, a curved bony ridge marks the point of insertion of the temporal muscles. To this is related the excessive elevation of the edges of the orbit (*a*, Fig. 5), which completes the impression of wildness and brutality.

Far more striking appears the disproportion between the cavity of the skull proper and the external surface of the skull, when we observe a section of the skull (Fig. 7). The cavity of the skull proper (*b*) shows a space not much larger than the cavity of the nose. Above, the ridge (*c*) projects, in the form of a toothed prominence over the arch of the calvaria, while in front the skull-space retreats to make way for the great frontal sinus (*a*). There remains only a proportionately small space for the brain. Nearly all de-

velopment comes upon the more animal parts, especially the organs of eating and breathing. Of all the parts of the body of the ape the brain grows the least.

If we reflect now that the brain of the anthropoid ape contains all the chief parts of the human brain, that the brain of the infant stands in nearly proportionate size to the young of apes, it is obvious that the development of apes proceeds from a certain time on a plan quite the contrary to that seen in man, and that, therefore, the ape, in its further development so far as concerns its head, becomes more and more unlike man. Even the greatest ape retains its baby brain, although the jaw may become nearly as large as that of an ox. It is, therefore, clear, that a human being could never arise from the progressive development of an ape; but rather the reverse, and hence this very development—that great chasm which exists between man and the ape. It is just so with the lowest ape; for instance, in the little *Uistiti*, found in eastern Brazil, the bony framework of the head retains a stronger resemblance to that of man than in the anthropoid species.

Though the same great law of development may determiné the structure of the ape as that of man in its fundamentals, the difference in the character of the two species is displayed in no other direction so strikingly as in the corporal development. First there is the *duration*, and all that is connected with this; then, the

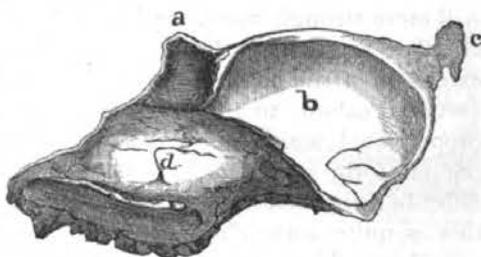


Fig. 7.—GORILLA SKULL, SHOWING BRAIN-PAN.

rapidity of development, as well in regard to the individual as a whole as to single parts; all which is totally different in the ape as compared with man. The

apes have in general a rapid growth and a short life; they are born in a condition of mental and bodily ripeness; their further development is completed in a few years, and an early death puts an end to their existence. Although we are not precisely informed as to the absolute length of life of the anthropoid apes, it is yet questionable whether any of them ever reach the age at which the growth of the human body stops; at least this much is certain, that the highest ape has reached its full development when man is still in early youth. They are sexually ripe at a time when man has not outgrown his childhood. And still far more significant is the totally different distribution of the period of development among the several parts of the body. With the monkey, the brain, as a rule, has attained its perfection before the commencement of the change of the teeth; while with man, the proper development then first begins. Immediately after the changing of the teeth there follows with the monkey that rapid development of the jaws and of the facial skeleton, that monstrous endowment of the external part of the bones of the skull, that gives so decided a sign of brutality of character. This difference is all the more significant when we consider that the changing of the teeth in the ape commences much earlier than in man. It is not my purpose now to consider the remaining parts of the body at similar length; but it must suffice to mention that the difference is still more strongly manifested if we look at other sections of the skeleton. The extension of the posterior section of the vertebral column to a tail, the totally disproportional length of the arms, the irregular form of the pelvis, are seen to differ in a single species of monkeys, and this is quite comprehensible. For, not only the "wild man," but all monkeys are climbing animals, in a greater or less degree; the tree is their natural home. None of them understand how to walk, in the proper sense of this term. The hope of those naturalists who seek the ancestor of man in the ape, is, therefore, deferred to the future.

As already stated, Vogt has taken another path of investigation in order to supplement the breach. Cases have long been known where in otherwise healthy families individuals have not arrived at a full development in skull and brain; and because they continued on the low grade of intellectual culture, it has been customary to designate their condition as congenital idiocy; and the individuals affected, *microcephali* (small heads). The skull as well as the brain have here undoubtedly greater similarity to the skull and brain of the ape than is found among well-formed men. Indeed, the relatively stronger growth of the jaws and bones of the face lend something very apish to their appearance, and the expression, "ape-men," is not applied to them without some warrant.

But we must not attach more importance to this expression than to the expression of anthropomorphism among the higher apes. As little as these apes, in spite of their resemblance to man, are actual men, so little are the *microcephali* monkeys, in spite of their resemblance. These individuals are nothing else than examples of impeded development, in Meckel's sense, and all the more so as the arrest in development by no means changes in like degree the structure of the body, but is essentially limited to the brain and skull.

The history of human malformations exhibits similar local conditions with animal resemblance, often in a far more surprising nature. Meckel has emphasized, with justice, the heart and the vascular system in this respect. "In fact," he says, "on a close examination into most of these abnormal conditions of the form of the heart and the vascular principle, we meet both the higher and lower animal forms, and later as well as earlier stages of development." "Yea," he adds, and this remark is of especial importance, "the gradation which constitutes the abnormal formations of this organ, is in so far still more interesting than that which represents the embryonic and the animal series, because from the union of higher and lower shapes arising

from the premature development of one part before the other, a variety of forms is produced"; a remark which deserves especial attention in so far as it contains the explanation of the resemblance, not always perfect, between the abnormal shape of the heart and the embryonic and animal conditions. He then describes not merely human hearts with the character of the mammal heart, but also such having the character of higher and lower reptiles, of fishes, and even of insects and crabs.

It is, perhaps, of importance to note among the great number of human deformities one of the most peculiar. We refer to that in which the upper and lower members are so stunted that the external appearance of such a child corresponds to that of a seal. Geoffroy Saint-Hilaire* has given them the name of *Phocomele*; and the name of "seal-folk" could with equal justice be given to them, as the term of "ape-men" to the small-headed. There are, further, human monstrosities which have neither head nor heart. Shall we consider them as reminders of the lowest orders of fishes, which stand on the lowest grade of the vertebrate animals, on the *Amphioxus*, which possesses neither head nor heart?

It is clearly perceptible that in this way it would be easy to prove too much. The history of misformation could be used to show that every individual, in the earlier stages of his development, not only once resembled all animals, but really corresponded to all species, that he is, therefore, or can be, at a certain period of his life, actually a fish, seal, or a monkey.

Another experience here comes into consideration. In the artificial breeding of domestic animals, the observation has not seldom been made, that certain varieties revert to the original species. Darwin, in his explanation of the origin of species, has carefully followed this reversion, the so-called *atavism*, and deduced therefrom important and in many re-

spects indubitable conclusions; and he even goes so far as to assume that not only varieties revert to species, but likewise that species reverts to species. Vogt has extended this theory to the micro-



Fig. 8.—EMIL, AN IDIOT.

cephals, but with the very extreme application, that of the reversion of genus to genus.

Were it correct when he says that the correspondence of the skull of the microcephalon with that of the ape is perfect,

* Isid. Geoffroy Saint-Hilaire, *Histoire des Anomalies de l'organisation chez l'homme et les animaux*, Paris, 1836. T. II., p. 208

this surely would be a most significant fact. Hè declares (in his "*Vorlesungen über den Menschen*," Vol. I., p. 252) that "the skull of a microcephal found in a fossil condition, and somewhat damaged, the lower jaw and the teeth of the upper jaw being wanting, would be unconditionally declared by every naturalist to be like the skull of an ape, and on a skull so little mutilated it were not possible to find the slightest characteristic mark through which a contrary conclusion would be justified." I may here, first of all, remark, that Vogt arrives at this conclusion by a comparison of the skull of the microcephal with that of the chimpanzee, and that, consequently, the chimpanzee must be considered as the father of the human race,—an idea which is contradicted by the fact that the gorilla still more resembles man than does the chimpanzee. And then the concession here made is not to be underestimated, that the jaw of the microcephal and of the ape can not be confounded. If we consider that Lartet has proved from the fossil piece of an under jaw found in an old marl stratum in the south of France, not merely the existence of an antediluvian ape, but even of a new family closely related to man, the *dryopithecus*, we shall then be in a condition to estimate the value of that concession. But with all this, I would doubt the main point of Vogt's theory. Even a microcephalic skull, lacking the whole face, possessing only the nasal bones, would suffice at the very first glance to show clearly the difference from the skull of a monkey, and a minute comparison of the single parts of the skull would certainly result everywhere in bringing conclusive differences to light. I call to mind only the position of the great occipital foramen, and the relation of the basilar process, which relation, however, must be shown in young microcephals and monkeys of higher age, not in mature microcephals and baby apes.

My chief objection against Vogt, however, is that he unceremoniously classes a thoroughly diseased condition in a row

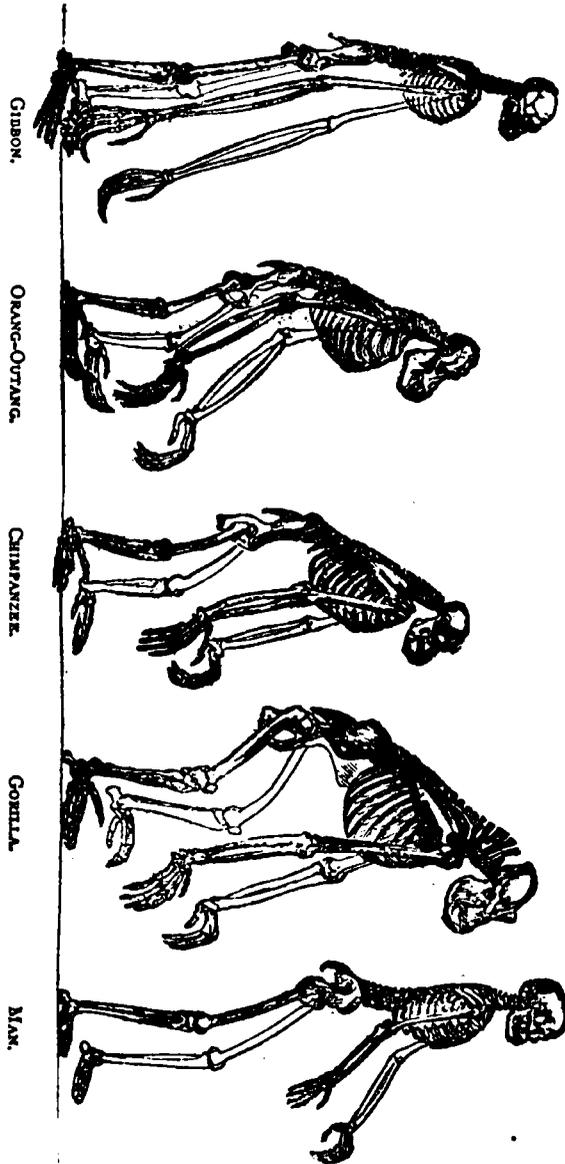
with normal and legitimate conditions of development. This can not be conceded, even from the stand-point of any enlightened disciple of the descent theory; for the origin of new species and varieties has only significance when the single individuals of the species or variety are properly organized for an independent existence, and, if necessary, also for the struggle for existence. But there can not well exist a species or variety if its single members are so helpless that they are unable to do anything for their own preservation, if they are unable to lead even a parasitical existence. This is, however, the case with the microcephals. Their idiocy prevents them from doing any sort of independent labor directed to self-preservation; they are thrown upon the family or society for their maintenance. Quite apart from their incapacity for propagation, their mental condition, or brain, is so deficient that even were such a kind or variety to arise, it would immediately fall without even a struggle for existence. And if their "reason" is nearly equalled by many apes, they nevertheless lack the instinct which, in the new-born ape, is remarkably active, and capacitates it for performances which are as judicious as surprising. Of this instinct, however, there is nothing to be perceived in the microcephalic idiot; his condition is essentially a lack of brains, that of deprivation without any compensation. He is a human being partially changed by disease. I have earlier pointed out that inheritance did not always have reference to the qualities or peculiarities within the range of the race or species; but rather, that its peculiarities might be increased or diminished in the separate generations. It is therefore possible that a defect in development arising from disease may be transmitted, and give rise to a variety or race. I instance only the pug-nose, which is found not only in dogs, but in swine, horses, etc. But to the formation of every variety or race transmission is necessary; and transmission is not possible without propagation. Where the latter is wanting no species can main-

tain itself. In the list of human monstrosities, the so-called "cherub" is one of the most remarkable. In this case the entire body and limbs are wanting; only the head is developed, so that a being is produced like those the artists of the Middle Ages often painted in or on the clouds. If such a "cherub" could live an independent existence and propagate its kind, there would arise a species of trunkless beings (*Acor-mi*), which would represent spiritual human beings. Unfortunately, they are as useless for the theory of atavism as the microcephals, for they live always at the cost of a twin brother, and all hope is vain that they will ever succeed to dissemination, or to dominion in this world. They suffice, nevertheless, to illustrate the reverse side of the theory of reversion.

We can, therefore, positively say that an actual proof of the descent of Man from the Ape has not yet been furnished. In my opinion the proof required must be able to point out a distinct species of monkey; a general likeness to the species, showing how man resembles one monkey in one thing and another in another, is not sufficient. All naturalists are agreed that none of the known apes represent this positive primary species. And with this the verdict is at the same time expressed, that all previous researches have led to suppositions, but not to proofs.

Is the question settled with this? For the naturalist, certainly not. Large districts of the earth are unknown that may contain fossil treasures, also still unknown to us. And among these districts are just the home regions of the man-resembling ape, as tropical Africa, Borneo, and the neighboring islands. A single new

discovery can alter the whole bearing of the question. The reserve which most naturalists impose upon themselves in this respect is caused by the scarcity of actual proofs for the Darwinian theory.



Logically and speculatively considered, the so-called theory of descent is excellent. Even before the publication of Darwin's book I said that "it appeared to me as a necessity of science to adopt a transitional capacity from species to spe-

cies." And I added: "At present there exists here a great chasm in our knowledge. Dare we fill that up with conjectures? Certainly, for only by suppositions will the untrodden paths of research be opened up." And this has been done by Darwin in the best sense of my words.

I continued at that time: "There is, indeed, another way to fill up the gaps. We can adopt the history of creation as given by religious tradition, and therewith simply exclude research. But, I say it plainly, we have no right, even with the acceptance of the personal creation, to consider the search after the mechanical process of creation as inadmissible." And, moreover, in all the accounts of the creation in the ancient religions, it is represented as more or less mechanically wrought out. According to the Jewish story of creation, the first man was formed of the dust of earth, and his mate of one of his ribs. From these two descend all men, therefore all races. Therefore, all men are brethren, and the whole genus one species. But is this much-prized unity of the human race so easily to be comprehended from the presuppositions of the Jewish tradition? Has any one yet observed the transition of one race into another? The whole theory of the human race rests on our observations of the transmission of mental and corporeal qualities. Ecclesiastical tradition represents Noah as the ancestor of all races. What kind of a man shall we then consider Noah, and consequently his ancestor Adam? The renowned ethnologist, Prichard, as well as the American orthodox Bledsoe, have had no hesitation in saying the first man was a negro.* But in this event, we are as little helped as if we considered them whites. For although it happens occasionally that a negro becomes white, and a white black, this only happens as an abnormality, as with malformations. A white negro, in spite of his white skin, has all the qualities peculiar to the negro; he is, and remains, a white negro. In order to become

in reality a white man, all the other parts of his body must likewise undergo important changes. But such a change lies beyond the limits of my experience. The actual transition of a negro race to a white one, or the reverse, has never been observed.

On the contrary, even the oldest monuments of art, especially those of Egypt and Assyria, show the typical form of the single races, as well of men as of apes, just as they exist at the present time. Experience is here totally at fault, and it is certainly very characteristic that the orthodox view which so violently opposes Darwinism, refers the origin of the human race with great naïve unconsciousness to the same principle that Darwin uses for the animal species, without their being able in the least to adduce demonstrable proofs. While facts seem to teach the invariability of the human race and the animal species, religious tradition and speculative natural philosophy require their variability.

One would think that theology and the natural sciences should at least be measured by the same standard. But against this proceeding the feelings rebel. It appears unæsthetic to admit the variability of human races with that of the animal species, since the question of the descent of man from the ape thereby comes inevitably up. Human pride will not permit such an approach as this. Man demands insurmountable barriers between himself and the brute: the lord of creation must constitute a special kingdom within the realm of the created.

This feeling led, in earlier times, to similar divisions within the human race itself. The heroes must have descended from the gods, in order that they should not be mixed with the common masses. Until far into the Middle Ages many families of the European nobility traced, in spite of the Jewish and Christian faith, their pedigree up to the gods of Greece. It was customary to refer back reigning families to Eneas, and through him to the goddess of Beauty, Aphrodite. As late as the year 1466, Albert Achilles ex-

* Cited by Nott and Gliddon, I., p. 570.

pressed in writing his conviction regarding the descent of his house: that his forefathers had gone from Troy to Rome, and from thence to the ancestral castle of the Hohenzollerns in Suabia.*

Nevertheless, such feelings are not decisive; they have no universal validity. Different lands produce different customs, different views, and different feelings. Among the Indian anthropoids there is one species, the hulman, which is not only an object of worship, but is likewise vouchsafed the honor of being considered the actual ancestral species of the human race. A reigning family, whose members bear the traditional name of "Tailed Rana," assert that they are descended from the sacred ape. The Canadian Indians go still further, in considering the entire living creation as a single great society, within the bounds of which man is only the first among his like. Between him and the animals, down to the toad, intimate bonds of relationship exist.†

Where facts are lacking there remains a place for sentimental science. But we have certainly no right, from the moral stand-point, to throw out the theory of descent. If Man is the last of those transformations through which the individual member of the animal kingdom has passed, he is also the highest and noblest one. It was, indeed, an infinite progress that living nature made when the first man was produced out of a lower animal, whether the latter were an ape or any other animal. And not less great was the progress, seen from this stand-point, which man himself made when he elevated himself in the course of thousands of years, from a rough, ape-like savage to the citizen of a true civilized state. If this last idea, however, is admissible, if it is not opposed to the feelings, if it is actually the foundation of almost all the reflections on culture and civilization, of the spiritualistic writers, then we must suppose that the idea which teaches us to

* A. F. Riedel, *Geschichte des Preussischen Koenigshauses*. Berlin, 1861, Vol. I., p. 14.

† A. E. Brehin, *Illustrirtes Thierleben*. Hildburghausen, 1863, p. 42.

go still farther back to look for our rough and savage forefathers among those cannibals of the ante and post-diluvian periods, should cause us no emotion, even if they were descended from the brutes. Morally speaking, it certainly imparts a higher satisfaction to think that man, through his own effort, has elevated himself out of that condition of rudeness, ignorance, and bondage, to one of morality, knowledge, and freedom, than to represent him as having sunk into abjectness, pollution, and sin, from which it is beyond his power to raise himself.

Nothing strengthens the courage of individual men in the striving for the highest good, more than the consciousness that there is really actual progress in the world; that intellectual labor is not lost, and that all the acquisitions of the past, all hopes of the future, rest on the possibility of transmitting, not only by means of bodily inheritance, but still more by way of intellectual transmission, an ever greater degree of excellence to posterity. And for that reason the theory of descent, although in itself unproven, and in its single deductions perhaps greatly erroneous, appears not only as a logical, but also as a moral postulate; not as a new dogma, but as a gleam on the dark path of deeper research, will it bring abundant blessings to humanity.

ASPIRATION.

I, to herd with narrow foreheads, vacant of our
glorious gains,
Like a beast with lower pleasures, like a beast with
lower pains!
Mated with a squalid savage—what to me were sun
or clime?
I, the heir of all the ages, in the foremost files of
time—
I that rather held it better men should perish one
by one,
Than that earth should stand and gaze, like Joshua's
moon in Ajalon.
Not in vain the distant beacons. Forward, forward,
let us range.
Let the great world spin forever down the ringing
grooves of change.
Through the shadow of the globe we sweep into
the younger day;
Better fifty years of Europe than a cycle of Cathay.

TENNYSON.

ORGANIC CEREBRATION.—No. 5.

(Continued.)

THE SELFISH PROPENSITIES.

THE next group of organs to be considered is made up of the selfish propensities. These are Vitativeness, Combativeness, Destructiveness, Alimentiveness, and Secretiveness, and they are possessed by men in common with animals, though in the lower animals the organs are modified in regard to relative strength somewhat as they are in men. Some animals have a feeble development of Combativeness and Destructiveness, others have small Secretiveness and Acquisitiveness. The fox and cat are sly; the dog is frank and open and combative; the squirrel lays up treasures for the winter. Fowls like grain as well as the squirrels do, but they never lay it up. These propensities have to do with maintaining personal existence, and are therefore related to self.

The organ of Vitativeness, located a little upward and backward of the opening of the ear, and giving width from side to side through the head at that region, gives the desire to exist here and hereafter. When it is deficient, a person is careless as to the preservation of life; does not seek to avoid exposure, difficulties, or dangers; and, in view of the life to come, has his doubts, in fact does not care. This sometimes becomes a central element in the manifestation of the selfish feelings—"to be or not to be, is the question," with such persons. We found a lady in an insane asylum who, with a number of nurses or attendants, desired a phrenological examination, and of her we remarked, that if she were to become insane, it would be in the direction of the fear of death, because her love of life (Vitativeness) was so largely developed that she would dread death and fear anything that threatened death; but we added that she had constitution enough to last until she was ninety years of age, and could not die earlier except by accident. She seemed to feel a deep interest

in the statement, and the matron, who was present, remarked, "She is here as a patient, and that is her peculiarity, the fear of death; otherwise her mind is sound as a dollar." It gave her new light on the subject of her difficulty; she resolved that she would pack her things and go home, which she did do the next day; and five years have elapsed and she has not been back. When that feeling of the fear of death now comes over her, she knows what is its nature, and is able to suppress her fear on the subject, as a person would not be alarmed at the toothache though suffering severe pain. If the pain were in the chest or loins he would send for the doctor, demand counsel, and think he was soon going to die; but knowing it is only toothache, he bears it. So our friend bears her recurring sense of the fear of death, and knowing what it is, it does not upset her. Her character had, as it were, turned on that one faculty; everything else has been subordinated to it.

COMBATIVENESS,

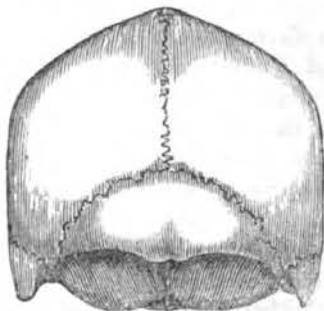
by its name, expresses, in a measure, its nature and mode of activity, namely, defensiveness, and this is especially its function when it works in conjunction with Cautiousness; but standing by itself it gives the disposition to assail whatever threatens the welfare of the individual in any of his interests. This organ lies next to Conjugal Love, Friendship, and Amativeness. It notably defends in the direction of the social feelings; whenever the child, the wife, the friend, the home are assailed, Combativeness vaults into the saddle and draws the sabre, is ready to join issue and sacrifice anything for the defence of the home and the home-circle. A professor in one of our American colleges, who has more wit than wisdom, made himself at once merry and ridiculous some years ago by ridiculing the idea that the conjugal and friendly elements

were located next to Combativeness, and insisted that the armor of war and the arbor of love should not be located side by side, and therefore Phrenology must be absurd in thus locating these organs. Our reply to that is, that animals and men will fight quicker for that which relates to love and friendship than they will for anything else. Take the male of any tribe of animals, from the horse to the cat, and if more fierce battles are not waged on account of love and fraternity than on any other account, we will confess that the witticism of the professor is sound philosophy. But the mere statement of the juxtaposition of those organs is demonstration of a philosophy in mental organism as wise as it is beneficent.

When Combativeness is uncommonly strong men will go to war for anything that is a decent provocation; they are fond of argument. Combativeness will work with Causality or wit; it would work to defend that which the sympathy approves; it will work to defend conscience, or ambition, or pride; or, working with Caution, defend against danger. We once examined a man in public, and said that he was very fond of argument, and no subject would need a contestant if he were present. Whoever might start either side of an argument would find in this man a respondent. He leaned back and looked up, sitting as he was on the platform, and remarked, "I must join issue with you on that point, sir." My quiet reply was, "That is so, you always join issue."

Men who are required to drive business, push work, and oversee, and urge matters, require large Combativeness, and many a man is thereby made eminently useful, and is esteemed indispensable. For instance, in railroad work a man who is called to be a "wreck-master," in railroad parlance, to prepare and hurry to the place where trains have been wrecked, and clear the track rapidly and promptly, needs Combativeness enough to assail anything. We have witnessed work of that sort when waiting to have the track clear-

ed, so we could go on with our train, and it was marvellous to see how the broad-headed man would command his men, and the affairs under his control, and roll a car over and over as if it were but a basket, and yet he was thoroughly good-natured. Although this is a faculty which has a good deal to do with quarrelling, there is a world of legitimate energy required in the management of affairs, in respect to which there is nothing of anger in its exercise. When boys play fiercely on the common, running, wrestling, jumping, tussling, rushing things, rolling snow-balls, and whatever else the philosophical and mild manners of boys will concoct to be done, requires all the Combativeness that one can carry without explosion, and sometimes they do explode; and while boys are terribly in



LARGE PROPENSITIES.—SKULL OF A MURDERER, BACK VIEW.

earnest in their vigorous play, they are not hateful or angry. Thus a driving business man, whether he run steamboats or trains against competition, or whether employed to construct railroads during a given time, or to clear the wreck where trains have been in collision, or whether to break colts or govern restive horses, or manage rude and uncultured men in masses, or go into battles for the country, and fight at Balaklava, or anywhere else, with a fierceness which is terrible—this faculty comes into play; and, in the light of these great enterprises, the little, contemptible disputes and squabbles which arise from an irritated state of Combativeness become ridiculous.

"The function of this organ Prof. Bain

elaborates fully and clearly. He is almost persuaded that it is properly localized, and is inclined to recognize it as an element in our constitution. His exposition of its scope and function is masterly, and shows a power of keen analysis. He discovers the combative propensity to be made up of two distinct ingredients: the superabundance of central energy, and the love of power in its most wide guise: successful rivalry. He criticises George Combe's definition of Combativeness at certain stages of his delineation of this organ. But it seems to us that the objections to Combe's definition urged by Bain springs from a failure upon the part of Bain to comprehend exactly what Combe intends to convey; in other words, Bain puts an unfair (not intentionally, Bain is too much of a Scotchman for that,) estimate upon Combe's definitions.

"When Combe declares that the propensity of Combativeness is necessary even for philanthropic schemes, he does not mean the pure pleasure of fighting, but simply means that Combativeness supplies courage in advancing those schemes, and the power to resist all opposing obstacles. There is no difficulty, as Bain declares that there is, in ascertaining whether a man is combative or not when a motive influences him to undertake some courageous enterprise. There are motives which enlist every faculty of our constitution, and yet we do not find any difficulty in separating the adjuncts or supports of that motive. We know perfectly well, for instance, that Luther was exceedingly combative, and that Melancthon was not. There was the same motive: both sought to reform the Church; but both were not equally bold. Luther feared neither devil nor man, but Melancthon shrank back even from a public avowal of his faith. When the combative Luther was by his side, Melancthon displayed a good deal of courage; but when Luther died, Melancthon completely broke down. Now here were two men, both inspired by the same motive, yet the difference in their combative spirit was immense. Was not

the combative temper of Luther of immense aid in propagating his religious reforms? There is no difficulty in deciding which was the more combative, Melancthon or Luther; for the physical development of the back-head of each is a perfect revelation.

"A mere novice in portrait-reading ought to be ashamed to say that he can discover no difference between Melancthon's and Luther's Combativeness. We would differ also, in some respects, as regards the definition given by Prof. Bain that the combative principle is the love of power in its most wide guise, successful rivalry. That there is an element of power in this propensity we admit, but aver that this power is different from the power enumerated under the function of self-esteem.

"It is a power of resistance to aggression, not a feeling of authority. The feeling of triumph which arises whenever a successful combatant defeats his opponent is incidental to the combative propensity, and would arise upon the success of any other of our faculties. The martial order displayed by troops, the love of debate, the spirit of contention which characterizes some men, is the real element in Combativeness rather than a feeling of power. And if Prof. Bain would carefully ponder the definition given by phrenologists, that all our faculties have various degrees of activity, from a low state of manifestation to a high or passional state, much of the confusion incident to criticising the phrenological analysis would vanish."

DESTRUCTIVENESS.

Sometimes Destructiveness becomes the leader in this group, and all the other faculties minister to its success. There are people who carry with them quiet revenges, waiting for a convenient time to bite or strike; in that case Secretiveness co-operates with Destructiveness; it steps lightly like a cat, it hides and waits like a tiger, and strikes, when the fitting time comes. But Destructiveness has also its virtues; it gives staunchness, ex-

cutiveness, endurance under pressure and difficulty, and enables a man to suffer without complaint, to hold on to his cause to the bitter end. We fancy there is a little of this feeling in the statement, "Though he slay me yet will I trust in him." Working with Vitativeness, or the love of life, it is an element of endurance. For instance, all the carnivorous animals which have Destructiveness large, many of them also Secretiveness and Combativeness, will endure, before they die, a great deal of abuse. It is hard to kill a cat, and a catfish so-called, that has a wide head, and is so great a fighter, and so cruel in its battles; it will live right on in two inches of water in the bottom of the boat, half cut in two with a spear. While all the rest of the fish thus caught will be dead in five minutes, he will be alive six hours after and ready to fight. The men who in the hard struggles and work of life endure all things, and master the situation, are generally well endowed with Destructiveness. The surgeon requires it, the dentist needs it, the man who blasts rocks, or cuts stone, or fells trees, needs it; or those who work at anything that requires heavy blows and hard smiting are the better for having large Destructiveness; and when Destructiveness and Combat-

iveness unite, then the highest order of physical courage is the result.

Destructiveness produces cruelty and severity sometimes in animals, though the animal may not have large Combativeness, and lacks courage. People speak of "brave as a lion." The lion is not brave; he is a coward when the royal Bengal tiger, regarded as his equal, or when a lion that is fully his equal, is presented; he hesitates, makes a great parade, but does not get very near. The dog, on the other hand, will assail a lion, a tiger, a grizzly bear, an elephant, a dog, or a man, and he does not stop to count the size of his opponent. Many a man has been saved because his little dog, who is as quick as a flash, has annoyed a bear, behind, that was pursuing the man to the death; he would turn to take care of the dog, which would of course dodge back and keep out of the way of the bear, while the man would be gaining distance, and when the bear turned for the man again, the dog was at his heels biting his hamstrings. We know of nothing but the dog that will fight a foe forty times his bigness, or one of its own kind and bigness to the death, with such unqualified and eminent bravery; and, therefore, we account the dog the bravest thing that lives.

NELSON SIZER.

TWO EMINENT BRITISH SCIENTISTS.

THE meeting of the British Association at Montreal during the last days of August and the first of September was a notable event for the Dominion, and for the United States also. As the American Association of a similar character held its meeting but a week later, the opportunity was afforded to members of the foreign and home society to show a reciprocal interest in each other, and this proved to be the case, with the natural result of bringing American and English scientists closer to each other, and strengthening their mutual regard for physical investigation by personal contact.

We are in the habit of seeing the names of such men as Tyndall, Lubbock, Sterry-Hunt, Tylor, Sir Wm. Thomson, Frankland, etc., so often in the published notes of scientific research, that it certainly was a distinguished occasion that brought them, or many of them, together, and witnessed their appeals for the recognition of true scientific progress.

It is very interesting to study a group of eminent scientific gentlemen. The type is marked—that of a prominent brow, broad and full in the temples, with a relatively large base of brain, and a nearly even balance of the Motive and Mental temperaments. Of course the va-

riations from the type are many, and the speciality of one's researches has its effect



SIR WILLIAM THOMSON.

in the variation. In the two members of the Association whom we have before us—Sir William Thomson and Sir Lyon Playfair—we observe conditions of organism that have their expression in the scientific life of the men, rendering them, in a good degree, theorists, generalizing from the facts of observation and formulating systems of a deeply abstract character. These men are not content with merely discovering something new and taking the crude facts that nature may yield to their searching eyes, but they study into the etiology, the cause and rationale of the facts, and trace out methods of application for them by which they shall be rendered practically valuable. They are critical as well as analytical; inventive as well as investigative. Such men have a more profound insight of the possibilities of scientific endeavor than the observer whose powers lie chiefly in the base of the intellect; they are able to anticipate, to perceive, and so predict much concerning the developments of the future. They belong to the Franklin class of savants.

Sir William Thomson has been prominent for many years as an electrician. He bore a very active part in the undertaking that resulted in the first Atlantic cable that was laid in 1866. He was born in Glasgow in 1824, the son of the late William Thomson, professor of mathematics in Glasgow University. He was educated at Cambridge, graduated there in 1843, and three years later was appointed professor of natural philosophy in the University of Glasgow. He also became editor of the *Cambridge and Dublin Mathematical Journal*, and performed the duties of that relation for seven years. Besides important contributions to mathematics and the science of magnetism, he has given special attention to electrical phenomena, and invented several instruments of value—among them the mirror galvanometer and the siphon recorder—that are used in ocean telegraphy. In 1866 he was knighted. He is still a professor in the Glasgow University, and this fall will deliver a course of lectures at the Johns Hopkins University, Baltimore, where he has lectured once before.



SIR LYON PLAYFAIR.

Sir Lyon Playfair is a few years older than the gentleman we have just sketched.

and was born in British India. As a boy he exhibited great fondness for chemistry, and was sent to study under Thomas Graham in Glasgow and London. In 1838 he went to Giessen, where he pursued organic chemistry under Liebig, and we first hear of him as a translator of Liebig's works into English. He was appointed professor of chemistry at the Royal Institution, and subsequently at the Museum of Practical Geology in London. At the great International Exposition of 1862 he was given charge of the department of examiners, having the appointment of upward of six hundred persons, consisting of the most eminent men in science and industry of all countries of Europe. Dr. Playfair was elected president of the Chemical Society of London in 1857, and in 1858 was appointed pro-

fessor of chemistry in the University of Edinburgh. He resigned the chair in 1868, and was soon afterward elected a member of Parliament for the Universities of Edinburgh and St. Andrews, and has officiated as Speaker of the House of Commons, being now Deputy Speaker of that body. Professor Playfair has been active in the improvement of manufacturing processes, in the advancement of technical education, and especially in the promotion of measures of public sanitation, and in the perfection of the Civil Service. He has written many scientific memoirs, and honors of all sorts have been showered upon him with unusual profusion. He recently married an American lady, Miss Edith Russell, of Boston. In 1883 he was made a Knight Commander of the Bath.

THE INEFFACEABLE RECORD OF OUR LIVES.

DAY by day, year by year, each one of us is making up an ineffaceable record. What men think of us, what our reputation is, composes no part of this record. The true record may be directly the reverse of what our reputed record is. The man who is maligned, unjustly accused, and maliciously slandered, can turn to the true record which is being made up with a feeling that justice will inevitably be done him, and he can wisely leave the matter there.

A man may not be appreciated by his neighbors, may even be unknown to a certain extent by his daily companions, and yet be a greater moral hero than many whose fame is noised over the earth. He may have withstood temptations such as few would have resisted, struggled against obstacles such as few overcome, and yet his life has seemed to lookers-on as a very ordinary one, unworthy of special note. That man can console himself with the thought that although others do not know the true record of his life, yet that full justice is sure to be done him, and that his record

will be made up just in accordance with the full merit of his case.

Another man may seem to be remarkably well prospered, honored and esteemed by his townsmen, and his fame spread abroad, and yet the true record of his life which is being silently engraved may be a very flimsy, weak, and mean affair. Every man may be said to have two records: one true—the other false. The false one is the one by which generally he is known among men. It may be to a greater or less extent true, yet almost invariably there will be more or less of it false, so that virtually it is a false record. It is what those who know him think he is. Take even the best of men, how far from the truth is the popular estimation of them. On the whole, the popular estimation may, perhaps, be approximately just; but look at the items which make it up. The man will be credited with numerous excellencies which he does not possess, and will be censured for many of the most creditable acts which he performs. Thus a man's reputation is oftentimes built on fallacies, and yet it may be fairly

just on the whole, he being credited with enough which he does not deserve to fully offset that which is not.

MEMORY IMPERISHABLE.

The true record is that which is being silently, day by day, recorded within each one of us. Every act we perform, every thing we see, all that we think, all that we feel, has its effect upon us, and tracings of that effect remain upon our consciousness. These tracings remain, never to be fully obliterated, and at any time may be reproduced. In regard to this matter Dr. Maudsley, in his "Physiology of the Mind," says: "That which has existed with any completeness in consciousness leaves behind it, after its disappearance therefrom, in the mind or brain, a functional disposition to its reproduction or reappearance in consciousness at some future time. Of no mental act can we say that it is 'writ in water'; something remains from it whereby its recurrence is facilitated. Every impression of sense upon the brain, every current of molecular activity from one to another part of the brain, every cerebral reaction which passes into muscular movement, leaves behind it some modification of the nerve elements concerned in its function, some after-effect or, so to speak, memory of itself in them, which renders its reproduction an easier matter, the more easy the more often it has been repeated, and makes it impossible to say that however trivial, it shall not under some circumstances recur. Let the excitation take place in one of two nerve-cells lying side by side, and between which there was not any original difference, there will be ever afterward a difference between them. This physiological process, whatever be its nature, is the physical basis of memory, and it is the foundation of the development of all our mental functions." Thus memory taking note of the acts of our lives, builds up within us an ineffaceable record, showing just what we are and what we have been. Every act in all its moral bearings is recorded. If we did a good deed with a low motive, it is there

recorded, and we shall see it hereafter if we wait; wrong intentionally, that is recorded; if we tried to do right and failed, that too is recorded; and if we intended to do right, and succeeded, that also is recorded.

NOTHING IS FORGOTTEN.

Apparently we forget many things, and yet these same forgotten things are continually recurring to us, years after they seemed to have been forgotten. In some cases of disease, when the mind is wandering, events which occurred years before will recur to the mind, although they had remained apparently forgotten for a long time. Sometimes things will thus be recalled, that certainly could not be recalled by any effort of the mind under ordinary circumstances. Coleridge, in his "Biographia Literaria," relates the case of a young woman about twenty-five years of age, who could neither read nor write. She was taken sick with a nervous fever in Göttingen, a Catholic town in Germany. During her illness, according to all the priests and monks in the neighborhood, she became possessed by a very learned devil. She continued incessantly talking Latin, Greek, and Hebrew, in very pompous tones, and with most distinct enunciation. The case attracted the particular attention of a young physician, and by his statement many eminent physiologists and psychologists visited the patient. Sheets full of her ravings were taken down from her mouth, and were found to consist of sentences, coherent and intelligible, each for itself, but with little or no connection with each other. A small portion only of these sentences could be traced to the Bible; the remainder seemed to be in the Rabbinical dialect. With much difficulty, and much patient inquiry, the young physician traced out her past history, and found that when nine years of age, she went to live in the family of an old Protestant pastor. It was further ascertained that it was the custom of this old man for years to walk up and down a passage in

his house into which the kitchen-door opened, and to read to himself in a loud voice, out of his favorite books. Some of those books were obtained, and so many of the passages which the young woman had uttered were found in the books, that there remained no doubt that she had obtained them from hearing him read them. In her normal condition, she probably could not have recalled a single sentence of these Latin, Greek, and Hebrew passages which she repeated so fluently while sick. In commenting upon this case, Coleridge says: "This authenticated case furnishes both proof and witness, that reliques of sensation may exist for an indefinite time in a latent state in the very same circles in which they were originally impressed, and contributes to make it even probable that all thoughts are in themselves imperishable; and that if the intelligent faculty should be rendered more comprehensive, it will require only a different and apportioned organization—the body *celestial* instead of the body *terrestrial*—to bring before every human soul the collective experience of his whole past existence. And this, perchance, is the dread book of judgment, in whose mysterious hieroglyphics every idle word is recorded! Yea, in the very nature of a living spirit, it may be more probable that heaven and earth shall pass away than that a single act—a single thought—shall be loosened or lost from that living chain of causes, to all whose links, conscious or unconscious, the free-will, one only absolute *self*, is co-extensive and co-present."

WHAT OCCURS IN DEATH BY DROWNING.

That this record of the life of each one of us which is engraven upon the mind of each is ineffaceable and endures seems to be confirmed by the remarkable experience of some persons who have become from drowning apparently unconscious (although it would seem that it is then that they are really conscious as never before), but have subsequently

been resuscitated. An instance is related by De Quincey, who says: "I was once told by a near relation of mine (a woman of masculine understanding and unimpeachable veracity), that having in her childhood fallen into a river, and being on the very verge of death, but for the assistance which reached her at the last critical moment, she then saw her whole past life clothed in its forgotten incidents, arrayed before her as in a mirror, not successively, but simultaneously; and that she had at the same time a faculty developed as suddenly for comprehending the whole and every part. This, from some opium experiences, I can believe. I have, indeed, seen the same thing asserted twice in modern books, and accompanied by a remark, which is probably true, viz., that the dread book of account which the Scriptures speak of is in fact the mind itself of each individual. Of this, at least, I feel assured, that there is no such thing as ultimately forgetting; traces once impressed upon the memory are indestructible." Sir F. Beaufort, in a letter to Dr. Wallerton, gives an interesting description of the sensations which accompany death by drowning. He says: "From the moment that all exertion had ceased, which I imagine was the immediate consequence of complete suffocation—a calm feeling of the most perfect tranquillity superseded the previous tumultuous sensation, it might be called apathy; certainly not resignation, for drowning no longer appeared to be an evil. I no longer thought of being rescued, nor was I in any bodily pain. On the contrary, my sensations were now rather of a pleasurable cast, partaking of that dull but contented sort of feeling which precedes the sleep produced by fatigue. Though the senses were thus deadened, not so the mind; its activity seemed to be invigorated in a ratio which defies all description, for thought rose on thought with a rapidity that is not only indescribable, but probably inconceivable by any one who has not been in a similar situation.

(For conclusion of this article see p. 225.)

TEACH ME TO LIVE.

TEACH me to live! 'Tis easier far to die—
Gently and silently to pass away—
On earth's long night to close the heavy eye,
And waken in the realms of glorious day.

Teach me that harder lesson—*how to live*,
To serve Thee in the darkest paths of life ;
Arm me for conflict now, fresh vigor give,
And make me more than conqueror in the strife.

Teach me to live! Thy purpose to fulfil ;
Bright for Thy glory let my taper shine ;
Each day renew, remold this stubborn will ;
Closer 'round *Thee* my heart's affections twine.

Teach me to live! No idler let me be,
But in Thy service hand and heart employ,
Prepared to do Thy bidding cheerfully ;
Be this my highest and my holiest joy.

Teach me to live! and find my life in Thee,
Looking from earth and earthly things away ;
Let me not falter, but untiringly
Press on and gain new strength and power each
day.

Teach me to live ; with kindly words for all ;
Wearing no cold, repulsive brow of gloom ;
Waiting with cheerful patience, till Thy call
Summons my spirit to her heavenly home.

"RATHER STRANGE."

I WAS living in a very secluded country home, and I was called away very unexpectedly to go to my mother's funeral. I left everything unlocked. One particular box I prized very highly. In it were laces I had saved for years, ribbons, and velvets, and feathers, and flowers and other pretty things, among which were valued gifts from husband, children, and friends. When a bonnet was to be re-trimmed, a dress rejuvenated, or some pretty thing made, these were resources for every emergency. Here were gloves brown, and gray, and white, and black, and fragments of silk, and satin, and velvet. The morning I left home, a new handmaid arrived. I remained away a week, leaving the stranger to preside over the household. On my return, the girl being lonely, wished to go back to the city, and urged me to give her a "character"—a recommendation for honesty and ability. I said, "Stay a month and I will give you the best one I can. I know nothing of you, how can I recommend you?" But she went, parting pleasantly from us all.

We lived then, four miles from gloves and laces, and neither horses nor man could always go just when I needed them. I had purchased a pair of new black kid gloves, and soon after lost the right-hand one, while walking through the woods with a friend. Word came to

me one morning that I must go to New York. Horses and man were away, and how could I go to the city with only one glove? I went to my box of treasures, but lo, it had disappeared, and with it all traces of gloves black or white. It had gone probably with the departed handmaiden.

How provoking, I thought—I must stay away from the city just for want of a glove. How I envied my city sisters, who at any moment, by taking a short walk, could furnish themselves with every needed thing. I *must* go to New York, and yet—I certainly can't go without a glove. How often do we have to do what we can't do! Something imperiously bids us go forward, and something else, like a resistless wall, rises in front of us, and we are helpless.

Well, I said, if I can't go to New York this morning, I will go up-stairs and straighten up the attic. Great comprehensive garret! there were gathered souvenirs of the past, in boxes, bags, and on shelves. In arranging and examining the great chaotic miscellany there, I could at least divert myself for a time from my own annoyances.

I began first at the trunks. In one, I had not looked for a year. I had forgotten what was in it. I found two of my mother's old dresses. I looked in the pocket of one,—there was a right-hand

black kid glove—my mother's. It would go very well with my left-hand one. I took the glove and went to New York, and accomplished something very important to me, and something I could have done well on no other day.

Months after, when I had laid aside my black bonnet, I was called again suddenly to New York. I wanted to re-trim a straw hat, and must have something respectable to wear to the city of course. But my box was gone, so I had neither flowers, bows, nor feathers. I sat with the hat in my hand, bewailing my lost treasures. If I only had one feather, I said, just one, for the left side, it would conceal a defect, and make the hat at least passable, till I could get to a milliner. Again, I sat envying my city sisters, so near to feathers, and all beautiful things. If I only had a feather, I said, just one feather,—the door opened, and my bright-eyed Edith came in. "Mother, mother," she said, "Walter has killed a whippoorwill!" "A whippoorwill!" I said. "Yes, and he is going to give it to the cat."

"Tell him not to let the cat have it, I want to see it," I said; "perhaps it is the one that sang for me at daybreak when you were so sick." I could never forget how when a solitary watcher through the long, lonely night—I had waited by my child's bedside, fearing she might leave me with the dawn. The bird's song on the early morning was to me the dawn of hope, for my child was saved, and given back to me from the very gate of death.

Out of my garden-gate, and down the lane, into the old stone house I hurried. Walter held the whippoorwill there—its beautiful wings when spread were nineteen inches. The bird itself was ten inches long. There were long streaks of black on the top of its head, and a narrow, white collar around its throat. The wings were brown, each quill had on the lower part reddish spots; the tail was rounded, and its terminal half was white. The feathers of the tail were beautiful. I saved them from the cat and put them

on my hat. I wonder if ever a lady before had worn a whippoorwill's feather on her hat. I went on to New York. "What a beautiful feather that is on your hat," said Madam Demorest. "It is a whippoorwill's," I said. "It is really beautiful and stylish too," she added. I went to the Centennial, and the whippoorwill's feather went also. While the hat had been in my hand without a feather, the little bird was resting on the branch, as if waiting for Walter's shot. I could see no possible feather anywhere for me just then.

Another morning I was standing by my bureau putting on my bonnet; the horse was waiting at the door to take me to the depot. I had laid out a scarlet bow to fasten in front with my collar, but it was missing. "Hurry! hurry!" said a voice in the hall, "we'll be late." So I wished I had a double scarlet geranium with some rose geranium leaves to put on in the place of the missing bow. "I do wish I had a scarlet geranium," I said, "nothing could be prettier, and they keep pretty so long. There is something cheering in the very glow of the flower." I hurried away with no ornament. The collar was plainly fastened with a pin. As the cars reached Jersey City, a gentleman came to me, one I had never seen before, and offered me a little bunch of double scarlet geraniums, saying: "Did you leave this on the seat, Madam?" "No, but I wish I had," said I, impulsively. Handing me the flowers he passed out of sight. I have never seen him since. I know not whence he came or whither he went, but I wore the flowers all day, kept them in a little vase that night, and wore them all the next day.

Some days after, I had been writing about China, gathering information from every possible source. I had read of Chinese cards, large, bright, and red. I wanted to see one just then very much. I went to New York on business, and much to my dissatisfaction, found it necessary to go to Brooklyn. By my side in the ferry-boat was a lady, and at her side a gentleman in military costume.

The lady had been talking with me, when the gentleman took out of his pocket three Chinese cards, showing them to the lady, who turned to me, saying: "Wouldn't you like to look at them? one of them is the card of a celebrated Chinese official." "Yes," I said, "I have been reading about them. I am glad to have the opportunity of seeing them." "You can keep one if you wish," said the lady—"take the one with the Chinese official's name on it." So I came home with a card, just the very thing I wanted.

Weeks after this, I had become very much delighted with some Swedish poetry. I could get only one little book of songs. I was still living out of town. I looked out one day at some beautiful trumpet-creepers; they had climbed up above the old smoke-house, and were growing down again; there was nothing higher for them to climb around. There were eighty beautiful trumpets open on that one vine.

The vine is like myself, I thought; how much it might do if it could, and then nobody can see its beauty here. It is only admired by me. I do wish I had another Swedish book. I could translate so many beautiful poems, if I only could have one—the trumpet-creeper is out of place here, and so am I. There is nothing to be had around here but butter and eggs. I went in the house, and sat quietly thinking of a world of books beyond my reach, when some one knocked. I went to the door, and a beautiful lady was standing there with soft, shining, gray curls. "I was riding by," she said, "and I saw those beautiful flowers, and I called to ask their name." Her carriage had unusually high seats, and she had seen the flowers peeping up above the arbor-vitæ hedge. She came in. I gave her some of the flowers. She saw my one Swedish book of poems on the table. "Can you read this?" she said. "Yes, but I can't find any Swedish poems; this is all I can get."

"There is a Swedish lady staying at

my house," she said, "who has a book of Swedish poems. My coachman shall drive over and bring it to you."

I thanked her, and said I would drive over myself next day and get it. I went and brought home the poems of Topelius. I opened at the middle of the book, and the poem there was *Trintergoten: The Galaxy*.

It was beautiful. I translated it, and it was published in *The Galaxy*, then of New York. Mr. Bayard Taylor saw it, and was pleased with it. He offered me every Swedish help he could give in the way of books or information. I translated other poems in the book—the book has now gone back with its owner to Sweden, but the flowers whose sad fate I was deploring, as unknown, unseen, were the beginning of some of the brightest hours of my life.

This was the poem that came to me so unexpectedly. It was very difficult to translate. I have preferred to preserve the thoughts of the original, a little at the expense of its smoothness.

THE GALAXY.

The night is still and clear; the lamps have burned away.
How memories all stand up, from long-departed day,
And mild thoughts float around, like star-beams in the
blue,
And wonderful and warm my heart is glowing too.

The stars look down so clear on the glory of the night,
As if death were not on earth—they smile so holy bright.
Know you their silent language? I have a story true,
I have learned it of the stars, and shall I tell it you?

Far away on a star he lived in the splendor of the sky
On another sun she dwelt, on another star-path high;
And Salami was she called, Zulamith the name he bore,
When they loved each other well upon this earthly
shore.

Their steps were parted here, by death and sorrow too;
But soon on their death rest, the shining white wings
grew.

Yet all the heaven's glory to them no joy could give,
While they on distant suns, so sundered far, must live.

In their blue, brightest home, on each other oft they
thought,

Yet all their love and longing to them no comfort
brought,

For Salami and Zulamith their sundered path between,
A boundless space and countless suns in charms of
glory gleam.

By longing power Zulamith was so consumed one night,
He began from world to world to build a bridge of light;

And Salami, like him, from the border of her sun,
From pole to pole herself a bridge of light begun.

A thousand years they build, with faith's unconquered
might,
And so the galaxy was built—star-bridge of beaming
light;
It did heaven's highest arch of zodiac path embrace.
And strand to strand together bind of widest ocean
space.

The cherubs, seized with fright, quick to the Almighty
fled,
See, Lord, what Salami and Zulamith have built! they
said;
But the Almighty smiled, a clear light round Him
shone,
What love upon my world hath built, that shall I not
break down.

And Salami and Zulamith when the fair bridge was
through,
They sprang into each other's arms, and straightway
in the blue
The clearest star in all the heavens in their pathway
up arose,
As after thousand sorrow years in bloom their one
heart glows.

And all who on this darkened earth have loved each
other dear,
By sin and sorrow, pain and death, so sadly parted
here,
If they could build a bridge of faith, from world to
world so blest,
Then surely it should reach their love, their longing
could find rest.

I had bought for myself once, something I very much admired, costing five dollars. When I came home and examined my packages, all useful, this one beautiful thing was lost. I knew I could not afford another, and with tearful eyes I sat alone desponding and guessing about its loss. Just then a thought came as thoughts will come sometimes. If there were only fairies to come and liberally endow us with gifts, how nice it would be. I wish there were a fairy. I opened a book lying on the table beside me, and happened to read a little French story pasted inside its cover. It was the story of "ten little fairies." Immediately I wove it into a poem, and taking it the next day into New York, I obtained for it the sum enabling me to replace my lost treasure. So the fairy story helped me, if the fairies did not. So many times in my life an earnestly wished-for thing has suddenly come to me. I have been impressed with the

feeling that ardent wishes are powerful in their way at times.

I have given several instances when I had a very intense longing for something that came as unexpectedly to me as a rose in a snowbank, or a star in a storm. Tell me, profoundest thinkers, was their coming accidental, or was it coincidental, or providential?

It was only a glove, a feather, a flower, a book; but the discomfort they saved me, the comfort they gave me was invaluable. To me other helps have come when sorrow's stone has closed up the door of hope, so that I know and feel that something without me, beyond me, helps me and understands me. These greater, stranger things are a part of my very life. There have been experiences confided to me, facts occurring in the history of some of my friends, that are more startling, dramatic, and thrilling than any I have read in the most exciting novel.

"It is rather strange," said one to whom I told these simple facts. Yes, it is rather strange, I think myself.

How many of us doubt even a fact, coming in an unusual manner. Truth must ride with royal crest through learning's triumphal archway, pass the moss-grown gate of experience, and bouquetted, and gloved, ring at the polished doorbell of understanding ere we bid it welcome. Yet truth, the best and brightest, may come unsought, unannounced, bursting like sunbeam through lonely attic window, or struggling like a green leaf through a dungeon wall. Yet often, if geography can not describe it, or arithmetic measure it, or science label it, or experience recall it—we turn away from its little, homely, honest face, beaming here and there like friendly angel.

Better to many is philosophy's noisiest coach, or clumsiest wheelbarrow, than truth's clearest, newest telephone. Blinded by the mists of speculation, bewildered by the ever-varying counsel of the mightiest voices, we turn sometimes to the oracle within, where we hear the quaint words of the old Apocrypha: "Let the counsel

of thine own heart stand, for a man's mind is wont to tell him more than seven men that sit up high in a tower."

Those who have done most for humanity have listened often to this pope within.

Everywhere, in town or country, are noble, struggling souls, shut away from outside joy or help, who have had given them little gold grains of comfort, so bright and precious, that they have hoarded them forever after in memory's hidden safe. Facts they are, experiences of real worth, yet withheld from page of magazine or journal, lest their owner's name be numbered among the list of demented, deranged, or visionary fools. Yet, if at every great fair, a new type of fruit or flower, a change in form or color, is welcomed with interest, why may not an unusual human experience be of like interest, and deserve an honest examination?

Each soul hath clime peculiar,
Its individual zone,
To which truth's sun gives color
And flowering of its own.

The all-resplendent sun touches and brightens the darkest stone, and the tiniest, most turbid stream; so whatever truth touches, it brightens and glorifies. Little things we hardly notice, and never

repeat, may be tests and proofs of some great truth that might dome the soul with its blue arch of blessing. As an artist sketching from nature herself touches only here and there at first in shadowy, broken outline, so truth comes to us at first in shadowy lines, half hidden, half revealed.

But one 'I know it' is worth a legion of grand perhapses, and all these little 'I know its' together, may make at last a mosaic pavement solid enough for philosophy's elephantine feet to tread. If the noblest thoughts that crowd and crown the solitary soul in its sublimest moods, could by some thought-photography be transfixed like the face upon the camera, what clear, bright books might we have, what poems pure and sweet as the dew in the rose's heart—how the pages would gleam with thought's golden sunrise and glowing sunset! There are little blue morning-glories twining around the windows of memory, or pressed in her hidden drawers, dearer than the hot-house flowers that queens or brides may wear. I have brought out some of my smallest, palest ones, hoping that some other better pen than mine will give me in exchange their brighter, sweeter flowers.

LYDIA M. MILLARD.

DELIA AND BLANCHE.

(Concluded).

III.

THE LAST MEETING.

IT was a very cold evening in November; the ground was covered with snow, and the wind blew bitterly round the corners of the streets, when Delia, wrapping an elegant cloak closely round her, entered her carriage. At that moment a letter was handed to her by her servant. She opened it and read as follows:

"A being, once warmly esteemed—the companion of happier hours—now languishes on a bed of sickness, deprived by

the hand of Providence of every earthly relative—every earthly comfort. She would fain see her early friend once more, before a state of utter destitution drives her from this world.

"P. S.—If Delia will pity a suffering friend she will inquire for Mrs. St. Honore, at — Street, No. —."

Delia's character, as her years increased, had acquired a greater degree of selfishness, which, mingling with her amiable propensities, did not render her a very benign dispenser of comfort to the unfortunate. She had, however (as I have before said), some starts of charitable in-

clination, and would fain have been a benefactress, could she have done so without sacrificing any of the luxuries in which her soul delighted. But this was a striking appeal: she yet held the paper in her hand—

“A being, once warmly esteemed, the companion of happier hours”——

“Who could it be?”

The coach rolled on; half an hour elapsed and it reached a miserable entry. With mawkish sensations, Delia stepped from her carriage; she walked up the entry, and knocking at the inner door, inquired for Mrs. St. Honore. An elderly woman directed her to the back room on the third floor; and finding Delia hesitate, she offered her guidance, and preceded her with a small lamp, which, on account of its broken chimney, was every moment on the point of being extinguished. Curiosity, more than any other motive, led Delia on; they at length reached the door, and the aged female having opened it, left her to enter alone. The room was capacious and dreary; a broken chair and a dilapidated table, a glimmering light in the chimney corner, with the low, comfortless bed, formed the whole of its furniture. But who was lying on that bed?

Delia took the light from the chimney, half trembling, for selfishness ever abounds with indefinite fears and vague terrors. She approached the bed. Merciful Heaven! it was Blanche—the companion of her playful infancy, the admired associate of her youth,—the lovely, the accomplished, the beautiful Blanche, alas! how changed! And can that wasted form, that pallid cheek, that languid eye, be all that remains of so brilliant a being? Delia wept, as a gleam of days gone by passed over her memory; she took the thin hand of her friend, and sitting down on the bed, listened to the long series of misfortunes which, after her union with one most beloved, had followed each other in rapid succession,—the death of her husband, followed by that of the two innocent pledges of their affection. She painted the progress of

want and despair in the eloquent language of an elegant mind; and Delia felt for a moment the renewal of feelings and sensations once somewhat familiar. She soothed her friend with the promise of her protection, and that she would carefully guard every future hour, until returning health and restored comfort should again shed their cheering influence. A melancholy smile passed over the features of the poor invalid, as she warmly pressed the hand she held.

“But, my dear Blanche, have you not one to take care of you?” She replied that the aged female, who directed her thither, had been her only nurse and attendant.

Some would think that Delia would have sent a servant at once from her own household, to care for her friend; that she would instantly have sent every comfort that might have helped to render that miserable and lonely chamber bearable, until she could have her removed to a better home; or that she would have this early and once beloved friend warmly wrapped up, carried to her carriage, and taken home that she might herself become her nurse and attendant. Blanche would have acted thus had circumstances been reversed; as Blanche’s heart was as generous as it was warm and sincere.

Now Delia’s was a very cold heart; so it followed, naturally enough, that she should take only a five-dollar bill from her purse and give it to her friend, with a promise to return on the morrow; and she was leaving the room, when she quickly returned to make some inquiries relative to the poor invalid’s clothing; she then bade her a second good-night and departed.

She really did, however, urge the old woman, whom she met on the staircase, to take every care of the poor sick lady; and gave her fifty cents in addition to insure her attention. But distressed friends are a great annoyance, and Delia, as she stepped again into her comfortable carriage, could not help thinking so

When Delia returned to her house she ordered her housekeeper to look up an

old blanket and a pair of servant's sheets, for a poor woman very much in want of them. "God bless your generous heart, madam," said Mrs. Dennis (rather astonished), as she bustled off to perform her mistress' behest.

Delia's waiting-woman had that requisite which most other waiting-women have, namely, her mistress' cast-off wardrobe; now this had been regularly arranged and given her only the day before; so that Delia's only alternative for keeping her promise with her friend, would have been to have purchased some of the requisite articles of clothing new; but no! the once elegant friend, born to affluence and accustomed to splendor, was now sunk into "the poor woman," and must be treated as such.

"Select a couple of each of those articles I gave you yesterday, Patterson; one change will be quite sufficient, and I will replace them with new; put them into a parcel with what Mrs. Dennis has looked up, and let Henry take them early in the morning, according to the direction I have given him." So saying she wrapped herself in an elegant shawl, and, ordering the sofa to be wheeled closer to the fire, prepared to take her tea.

On the next day Henry took the parcel and inquired after the health of "the poor woman," for Delia would not for worlds have either her husband, Mr. Stonnington, or the domestics know that any one so distressed had ever been her friend and companion.

The following day Delia dined out; she did not return until late, and went to bed so "fatigued," that she quite forgot to inquire about her friend.

The next day Mr. Stonnington gave a dinner-party; on the evening following, Delia gave a supper-party, and the extreme fatigue of giving orders for the necessary preparations, so much overpowered her that Blanche's wants and distresses never once entered her head. On the following morning, however, these few lines, written with a trembling hand, for a few moments, at least, awakened her attention:

"MY DEAR DELIA:

"My kind attendant is very ill, so that I fear I shall not long be able to secure her assistance; I have been very much annoyed by my landlady for the sum I am indebted to her, and have given her the greater portion of your kind present, that I may not be disturbed, or even absolutely, perhaps, deprived of the miserable abode which is, at least, a shelter.

"I find my strength fast wasting; when your happier fate will allow you a few moments to devote to the unfortunate, I wish most anxiously to see you.

"Adieu, dear Delia.

"Your obliged friend,

"BLANCHE."

"Your dress, ma'am," said Patterson, putting the new dress, carefully wrapped up, on the bed.

"Is Mrs. La Mode gone?"

"Yes, madam."

"What a distressing circumstance! Why, I wanted to see her about the altering of my white lustrine; we are going out of town to-morrow, and I would rather anything on earth should happen, than that everything should not be ready. What an unfortunate being I am!"

Delia then ordered a servant to be sent to Mrs. La Mode, and turned round to Patterson to give the requisite directions for the articles to be arranged for the journey; she then rang for her writing-desk, and wrote the following note:

"MY DEAR BLANCHE:

"I am really sorry that preparations for a journey that Mr. Stonnington insists on my taking into the country for a week, will prevent my coming until our return. I trust I shall then find you better; and

"Believe me,

"Yours affectionately,

"DELIA.

"P. S.—Do not write at present, for fear of accident; I will send to you when I return."

On the day following, Delia and her husband stepped into their snug travelling-carriage, themselves comfortably

fenced from cold. They arrived without an accident or inconvenience at the place of destination; and were greeted with all that frank, good-natured welcome that the rich generally receive. A week elapsed; another passed; and the third saw them again comfortably housed in their beautiful city mansion.

"Have any letters arrived?" said Delia on entering her dressing-room.

"No, madam, only this little dirty scrap of paper, that a little half-naked, wretched boy brought last Sunday."

Delia snatched it angrily, for she was fatigued; she opened its twisted folds and read as follows:

"You said, my dear Delia, that you would write on your return; and that return would be in a week. A fortnight has elapsed, and not a word—not an inquiry. Have you then forgotten me? Alas! death presses heavily on me! its shadows are even now flitting before my eyes. Delia! shall we ever meet again?"

Delia's heart sickened; a severe reproach mingled with the pleadings of compassion, of affection, of the sympathy of early friendship; but she made an effort to stifle the annoying emotions.

"To-night I am very much fatigued," she murmured petulantly, in reply to the accusing voice within her bosom. "I daresay, poor thing, she is very ill, but she always expresses herself so romantically; she, no doubt, fancies herself much worse than she really is; to-morrow will be quite time enough to go to her." So saying, and having dressed herself for the evening, she joined her good-natured husband in the parlor. She never once calculated how far the little sum remaining from her princely (!) gift (after her unfortunate friend had silenced her merciless landlady) would go toward procuring the cheapest subsistence for, now, nearly three weeks,—for Delia had found her breakfast, dinner, tea, and supper elegantly arranged for her at their stated times; her bed of down received her at night; her maid was ready to dress her in the morning. How could Delia then dream of the agonies of hope delayed,

the pangs of hunger? No. petulant, fantastic, and miserable,—courted and flattered for her wealth, though not esteemed for her worth,—she had forgotten all things, excepting that goddess of idolatry, *herself!*

The evening passed rapidly away, and a sleepless pillow recalled to her memory many a scene she would have banished from reflection. In vain did she try every position; repose both of body and mind denied her this comfort, while her husband slept tranquilly and peacefully beside her. "His conscience is easy," said Delia. At the approach of morning she fell into a feverish slumber,—a slumber that pictured scenes of calamity, woe, and death! She arose unrefreshed, took a hasty breakfast, dressed, ordered her carriage, and drove to the entrance of the miserable house, her unfortunate friend's wretched and desolate abode.

She once more ascended the staircase; the wind howled through the ruinous passages. She met the lodger on the lower floor, and inquired for Mrs. St. Honore. "I really don't know how she is, madam," she replied; "poor, old Mrs. Rollins, who used to attend a little to her, died a few days ago. I have not seen any one go up to her since. Indeed," she continued acrimoniously, "it is well for those who have rich friends; I am so taken up with the struggle of getting together a bit of bread for my large family, that I have no time to think of others."

Delia's heart smote her most bitterly; her knees trembled as she reached the door. It was fastened. She called, "Blanche, Blanche!" All was silent as the grave. In desperation she set her foot against the crazy door; it yielded, and she entered and approached the bed. Avenging Heaven! her once loved, once cherished Blanche, the consoler of her child sorrows, her gentle adviser, her sweet companion, lay a lifeless statue! Her wan but still sweet features were fixed, and her beautiful lips closed, and smiling even in death. Her head reclined on one arm, over which the ringlets of her abundant hair fell gracefully

while the other hand grasped a paper, which Delia, frantic with horror, drew away, and read:

"I have passed three days without sustenance; I feel that I am dying. Delia, do you remember the Gazelle? Alas! little did I dream in those days of golden sunshine, that its fate would be my own, and that by the same hand!"

Delia read no more—a horrid gleam of agonizing retrospection visited her heart; she uttered a piercing shriek and fell senseless on the body of her friend.

Time passed, and she did not return to her carriage. The coachman, becoming anxious, mounted the rickety stairs, and finding the door open, entered, and found the mistress lying insensible by the dead.

Mr. Stonnington was immediately sent for; and no effort was left untried to restore life to both. But Blanche's gentle spirit had fled forever!

Delia was restored to consciousness, but her mind had suffered too great a shock—she was insane.

MRS. EMILY LOMER.

TRUE LOVE AND BLIND PASSION.

A WHILE since the PHRENOLOGICAL JOURNAL contained an article entitled "What is Love?" in which the writer said: "There is something that we call love, which lasts as long as life endures, *and a something else* which resembles it so perfectly that there is no way to distinguish between the two."

It is not my purpose to indulge in contradictions or disputes; but I should be derelict in my duty if I allowed such a statement to pass without showing my readers that *there is a way* "to distinguish between the two."

The article above mentioned concludes by asking: "What is love, and what is that something which is called love, but which is no more like it than the pure, newly-fallen snow is like the mud of the gutter?" For the purpose of presenting and explaining my theories it will suffice to say that LOVE IS LOVE and "that something which is called love" is *blind passion*,—a species of mesmerism, which is excited mainly by physical charms; a green-house exotic, springing up before its time, bearing unripe, unhealthy fruit, and often resulting in unhappy marriage. Love is of slower growth, healthy and fruitful, always mutual and reciprocal, and based upon excellencies of mind and heart, an esteem of intellectual and moral qualities. And it is very important that the young should understand this, that in the formation of attachments they may

be so guided by wisdom as to insure to themselves the pure and heavenly enjoyments of true affection. True love has its foundation in the law of affinity and adaptation, and it can only exist between those whose mental and moral characteristics harmonize, between equals or equivalents. But this passion springs up between those who are very unequal; between the fine and the coarse, the refined and the vulgar, the honest and the dishonest in human nature. This forms one *rule* by which we may distinguish between the two, and it also shows that it is passion instead of love that is blind. Love is far-seeing. Love grows stronger in the possession of its object; passion quickly fades into unconcern or merges into disgust. Love sees the virtues and, attracted by them, forgives the faults; passion exaggerates the faults and is blind to the virtues.

Love purifies; passion debases. Love withstands the severest tests that human agency can apply; but passion, in moments of calm reasoning stands revealed in all its deformity. And yet we are told that there is *no way* to distinguish between the two! With such false views and doctrines we need not wonder that many of the young, left to grope their way in darkness and ignorance, do mistake the one for the other and awaken to the truth only when it is too late.

Many young people, full of moonshine

and romance, form sudden attachments which they imagine must be gratified or their disappointment will drive them to insanity or death. Many imagine that they marry for love, when it is only this blind impulse, as evanescent as the wind. A few days of wedded life sadly dispels the illusion. The wedding over, the honeymoon passed, the intoxication begins to satiate because it is animal in its character. Little difficulties spring up until the parties are both sick of their bargain, and the unfortunate young wife especially, loses her ambition, neither enjoys life nor cares for death—all because she did not marry rightly.

The writer above quoted admits that these sudden attachments are fleeting, scarcely ever enduring after marriage; and in illustration cites the case of the cultured girl who eloped with her father's (uncultured) coachman, and also the case of a refined young lady who married her dancing-master (a beast in heart), with nothing to recommend him but a fine air and a graceful limb. In both cases the girls repented of their choice within a few months. What they called *love* soon turned to positive aversion—to *hate*; and this is another way by which we may distinguish between the two. True love is enduring. Founded upon mental and moral congeniality, harmony of tastes and purity of sentiments, it is tender yet strong; enduring through sunshine and storm, unchanging, prosperous, virtuous, *eternal*. Use only brightens and strengthens it. Age gives it intensity and power of action. Constant, and unchangeable, it never wearies nor faints. It is not the gratification of any one organ of the brain, but of the mind as a whole. It permeates every fibre of the being, and glows with untarnished brightness through all the trials of life. But it should not and need not be mistaken for passion, or for sentiment or an idle fancy. It is more than all these, for it goes to the very core of the being, while the others are superficial, transparent, and fleeting.

A true love union, a union of soul and mind and that mutual reciprocity which

makes of the twain one flesh, must be pure and enduring. Every day makes it more sacred and holy, and more happy in its results. Every day its light grows more pure and bright, its influence more exalted and powerful. It guides the feet in the way of righteousness and inspires the whole soul with the life and beauty of its heavenly sweetness. In such a union, physical charms appear as nothing compared with the beauties of mind and heart. There is a feeling of sacredness which appertains to no other attachment. It is as much above that voluptuous passion which doats on the physical form as the soul of a man is above mere brute instinct.

And furthermore: while this blind passion often results in the legal union (I can not say marriage) of those who differ from each other in every respect (except that both are blind), there can be no true conjugal love without physical, mental, social, and moral adaptation. The parties must be going the same way in life and have no conflicting traits of character. The Christian and the infidel, the temperate and the intemperate can not be harmoniously united with each other. A refined woman can not love a sloven; a pure-minded girl can not love a sensual brute. The parties must have similar aspirations and desires, and in all the important features of mental and moral development there should be complete harmony. Thus it will be seen that there is a vast difference between true love and "that something else which so perfectly (?) resembles it." And the ability to distinguish between the two is not only easily acquired, but it is an absolute necessity to all who contemplate marriage; for in order to enjoy its relations they must marry rightly, and there can be no true marriage without true love in its foundation, and this love should pervade the whole life, and make it a *life of love*. This life should be determined upon before marriage; for marriage is the great event in life's drama—the final settlement of our nature; and when rightly entered and wisely lived, is the source of

life's richest blessings and its sweetest delights.

I suggest a practical home education as a safeguard against blind attachments, false unions, and the unhappiness and misery which follow their consummation. The freedom allowed the young should be accompanied by a certain amount of loving guidance and wise control on the part of parents. This would prevent young people from marrying in haste and repenting at leisure. It would prevent rascals from becoming the husbands of virtuous women, and bad women from becoming the wives of good men.

If parents and children were properly educated in social and matrimonial ethics; if they knew the laws of conjugal harmony, and the importance of securing it, they would have no difficulty in distinguishing between true love and its counterfeits, and their reason would infallibly guide them in the way of truth and right, and such cases as those referred to would not occur. This education would be a light to many who now walk in darkness, and show them a higher and happier path. And in this new world of knowledge we should escape the many ill-considered marriages and the long, dismal chapter of family quarrels, tragedies, elopements, and divorces which is continued in the daily and weekly records of the press. Thousands instead of finding the brightest hopes of their youth blighted, and their purest affections trampled in the dust, would be forewarned of the hidden rocks on life's voyage and guided into the channel of wisdom, safety, and peace.

"Mount up the heights of wisdom,
And crush each error low.
Keep back no words of knowledge
That human hearts should know."

EDW. JONES.

JOHN RANDOLPH'S ADVICE.—When John Randolph was in London he wrote a letter to a gentleman who married his favorite niece. In it was the following advice:

"Have no dealing that can possibly be avoided with your neighbors. The dis-

regard of this caution will certainly lead to squabbles and strife.

"Take no receipt on loose pieces of paper. Carry a receipt book in your pocket, and take all receipts in it; if you are afraid of losing it, keep it in your desk. Always have the receipts witnessed when practicable.

"Copy, or have copied, all your bills in a book, so that you must, at a glance, see the cost of an article or branch of expense. Without accurate accounts you may first fall behindhand. What voyage would a ship make without observation or reckoning? You are now embarked on a voyage of life; without a good lookout you may be cast away.

"Form no intimacies with your neighbors under a seven years' acquaintance. The rigid observation of my own maxims did not prevent ill-blood between some of my neighbors and myself. My maxims preserved me from strife and from loss by those. With the rest I was on the best of terms.

"Economy—the adapting of your supplies judiciously to the intended end. This is a gift of God. It can not be taught, at least I have tried to learn it all my life, without success. My mother had it in perfection.

"Frugality—it is in the power of every honest man, who means to retain his honesty, to refrain from indulging in expenses which he can not afford. A disregard of this maxim, the result of their ignorant indolence of their own affairs, has ruined all my name and race; they did not know what they could afford, and some, I fear, did not care."

WOMEN IN CALIFORNIA.—A lady writes from California to a Western paper in the following terms. We trust that things there are not just what they seem, for the sake of our brothers of the Pacific coast, and if the statement is untrue we are willing to publish a denial. She says: "I want to expose a fraud. You know the newspapers have been for several years telling about the great pre-

ponderance of men over women in this section; how many rich bachelors there are, and how impossible it is for a girl to stay anywhere over twenty-four hours without an offer of marriage. Indeed, one paper said that every pretty girl held a continual levee, in which suitors took turns, the same as at a barber-shop. Now, I have been here six months, and I want to denounce such statements as frauds. There are more men here than women, it is true; but if my judgment goes for anything, the most of them have run away from marital bonds elsewhere and come out here to have a quiet, peaceful time, away from the pestiferous sex that

has caused their woes. A woman is of less consequence here than anywhere in the world. The Chinese do most of the washing and house-keeping, and work at about the same wages that girls and women would find necessary. There is mighty little marrying and giving in marriage here. The men don't seem to be anxious about it, and the girls are so well up to snuff that they won't encourage a man until they know all about his former life, and make sure he hasn't a surplus wife or two somewhere East. Oh, no; this is no place for a girl who wants to marry, and I'm coming back to Nebraska this fall."

(Continued from p. 213.)

"The course of these thoughts I can now in a great measure retrace—the event which had just taken place—the awkwardness that had produced it, the bustle it had occasioned, the effect it would have on a most affectionate father, the manner in which he would disclose it to the rest of the family, and a thousand other circumstances minutely associated with home, were the first series of reflections that occurred. They took then a wider range—our last cruise, a former voyage and shipwreck, my school, the progress I made there, and the time I had misspent, and even all my boyish pursuits and adventures. Thus travelling backwards, every past incident of my life seemed to glance across my recollection in retrograde succession; not, however, in mere outline and collateral feature. In short, the whole period of my existence seemed to be placed before me in a kind of panoramic review, and each act of it seemed to be accompanied by a consciousness of right and wrong, or by some reflection on its cause or consequences; indeed, many trifling events which had long been forgotten, then crowded into my imagination, and with the character of recent familiarity. . . . The length of time that was occupied with this deluge of ideas, or rather the shortness of time into which they were condensed, I can not now state with precision; yet certainly two

minutes could not have elapsed from the moment of suffocation to the time of my being hauled up."

Such instances as these which have been given will serve to illustrate with what minuteness the record of our lives is kept within the mind, and also indicate with what fearful vividness this whole record can be brought up at once before us. It is not improbable that this is the book of record which will be opened to each one of us in the day of judgment. If our lives have been bad, what a terrible, what a tormenting record of burning wrongs will glare at us. How then is any one to escape the punishment which a wicked life entails?

H. REYNOLDS, M.D.

A GOOD DRUGGIST.

A MAN who kept a store
Once wrote upon his door:
"Oh, I can make a pill
That shall ease ev'ry ill!
I keep here a plaster,
To prevent disaster;
Also some good ointment,
To soothe disappointment."
When customers applied,
These words are what he cried:
"Now, *Patience* is the pill
That eases ev'ry ill;
Take-care is a plaster,
Which prevents disaster;
Good-humor an ointment,
Soothing disappointment."

St. Nicholas.



THE FUNCTION OF TASTE.*

POLITENESS requires that when we visit our friends, we should rap at the door, or ring the bell, and wait to be admitted. If we are calling upon a stranger, we are often requested to state our business before we are permitted to see the master of the house. There must then be certain persons whose employment and duty it is to scan those who desire admittance to the dwelling, and state what is the pleasure of the master. These persons might well be called the Guardians of the house. If the grocer's boy comes with food, it is accepted, unless it is not what was ordered, or is in some way defective. The servants are apt to form their judgments from their own personal likes or dislikes, and their opinion may not always be correct. Yet the master of the house must rely upon their judgment to some extent, or the servants will be of little use to him.

It is not to be expected that a house so valuable as our House Beautiful would be left unguarded. There are several guards stationed in different parts of the house who watch over its welfare. One of these is stationed in the lower front hall. He is a soft, smooth, supple individual, and wears a pink uniform, and, like all the servants of this house, is never allowed a day out. He is ever on

duty, though he often puts his head outside the door to take a peep at the world. He is so soft and nice when you please him, that you might fancy that he could never be cross; but if he does not like people, he never hesitates to say so, and he turns them out of the house at once. Sometimes, on a long acquaintance, he becomes attached to those who at first were very disagreeable to him.

You have not forgotten that repairs are constantly going on in our house, and that nearly everything needed to build it up is brought to the lower front door. Here it is examined by this guard, who decides whether it suits him to let it pass or not. He can not always make a final decision, but submits the matter to the owner of the dwelling for his opinion. "This tastes good," he says, "I think you better let it pass"; or, "This does not taste good, I would rather you would not admit it." The owner likes to please this guard, who has the rather long name of Gustatory Sense, and generally refuses to admit those whom Gustatory Sense dislikes. But there are times when he must decline to be guided by the opinion of another, and must decide by his own reason whether the article shall be admitted or not.

Gustatory Sense is such a long name, that he is generally called Taste. Taste has to be carefully watched. He does not always know just what is needed in

* From "The Man Wonderful in the House Beautiful. An allegory. Teaching the Principles of Physiology and Hygiene." Fowler & Wells Co.

the house, and makes his decision from his own personal likings. He is fond of sweets, and sometimes sends so much of them into the kitchen, that the cook complains that he can not dispose of them, and, by and by, perhaps the other assistant cooks get soured with being overworked in digesting so much sweet, and they rebel and say, "We will not have it," and they call in some powerful muscular servants to aid them, and they send the offending substance back up the kitchen stairs and out at the front door, and Taste does not like that at all. He never relishes anything after the cooks have been working at it.

If the muscles are not sufficient to send out the offending material, the owner of the house may call in a helper, whose name is designated by the two letters, Dr.; and he gives something which Taste would gladly put out of the house at once, but he is compelled to let it pass, and when it gets into the kitchen, it causes such a great disturbance, that an extra effort is made to get rid of this new intruder, and, in the accomplishment of it, the obnoxious sweet is also sent out, and poor Taste feels that he has a hard time of it. You would think that he would learn by this experience to avoid that mistake again, but the truth is, that when he has once acquired a liking for a substance, he will accept its company, no matter how much trouble it may cause in the house.

It is, therefore, important not to allow him to make objectionable acquaintances, for he may become so intimate with them that he becomes very unhappy unless he can have their constant society. Unfortunately we can not discharge him, although he may make us a great deal of trouble or even pain. We can only take charge of him, and not allow him to become master of the house. He will grumble very loudly, and complain that he is very miserable because we do not trust him, and sometimes he induces other servants to join in this fault-finding; the only way then to do, is not to listen to any of them, but give them to

understand that Reason, not Taste, is master; and when he has been taught, by Science or Experience, that certain things are harmful, we will listen to his advice and not to that of Taste, who selfishly, at such times, cares only for his own pleasure and not for our real good.

When people live in a simple and wholesome manner, the judgment of Taste is usually to be trusted. He will always say that milk is good, that he likes plain bread and butter, and simply-cooked vegetables and meats. But if he is accustomed to having everything dressed up very fine for his pleasure, he loses the ability to judge of the worth of honest, wholesome, plainly-dressed visitors, and decides that he prefers appearances to reality. He is quick to be educated in wrong habits. So it is very important that we should be careful to give him a good education. I have seen little people whose Gustatory Sense said that he would not admit bread into the house unless it wore a coat of sugar or honey, and as papas and mammas know bread is very necessary to life, they sometimes think that they will be obliged to listen to the demands of Taste, or the little beautiful house will get out of repair. So in order to get all of the substances needed for repairs, the cooks are obliged to dispose of too much of something not needed.

If, when he insists upon having all of his company dressed up, he were deprived of all company for a while, he would be very much pleased to receive a call from a piece of very dry bread, and would say, "O, how good that tastes."

There are several bad habits into which Taste may fall. He enjoys "good things" so well that he often gets into the habit of tasting too frequently. He is not satisfied with what he gets at the table, but he must be tasting between meals, and this creates a great deal of trouble in the house. The cooks get out of patience because he keeps them all the time at work, so that they get very little chance to rest, and no one likes to be always working hard. But, if Reason does not

govern this little fellow in the pink uniform, instead of being our guardian, he becomes our destroyer. Sometimes he is not content to eat a fair amount at meal-time, but calls for more and more until he fills his poor kitchen so full that it can not squeeze together, and the master is made to feel very uncomfortable, to say the least, and often he is caused to suffer pain and disease. Another bad habit is to call for food so fast that the owner is obliged to eat as fast as he can, to gratify Taste's desire to feel something good passing over him all the time. This is the cause of indigestion, because food that is swallowed so rapidly can not be well masticated, and that makes more work for the cooks, and the result is that they can not do their work well, and so the house is not well repaired. If Taste

did but know it, he would enjoy much more to let the food stay longer in the mouth, and turn it over and over, chewing it well, and so obtain a full taste of all the sweetness.

A very common bad habit of his is desiring all food to be rich in quality, full of sugar or fats or spices, all of which he soon acquires a taste for, and says things are poor and not good unless containing a large quantity of these things. He makes a mistake in calling them good, for they are not good, unless they are needed to keep the house in repair or to keep it growing. If we desire that Gustatory Sense shall be truly our guardian, we must keep him from acquiring these bad habits, or he will in time become our master, and a very tyrannical master he is, I assure you.

CHOLERA AND UNCLEANLINESS.

WHETHER or not cholera is communicated by a microscopic germ, a microbe shaped like a comma, or a minute wriggler of any shape, it is certain that filth and uncleanness have much to do with its prevalence.

This is what a newspaper correspondent says of the condition of the infected cities of Marseilles and Toulon, as they appeared to his personal observation in the latter part of July. First of Marseilles:

"Passing along the narrow and squalid Rue Caissere, over one-half the shops were seen to be closed at every crossing. From a tenement region, on the hill above, a stream of fetid water flowed across the street, and plunged down a precipitous descent on the other side, through dark lanes crowded with towering rookeries, swarming below with idle men, and children playing in the filthy gutters; the women, meanwhile, swashing the water about with their brooms, under the evident impression that they were cleaning something. Each glimpse of any one of these streets is enough to turn the stomach of any healthy man. The smell through all this quarter in

which, during a space of twenty minutes, we met three laden hearses, was bad enough; but the smell was indescribably worse when we had driven across the town to two of the most afflicted quarters of all Marseilles—Capelette and the adjoining quarter. In order to reach them we crossed the old ship-canal, which was filled to the brim with reeking water, and had its surface thickly covered with garbage and refuse of a decidedly miscellaneous and revolting kind."

And this is extracted from his notes on Toulon:

"If, in a sanitary sense, the condition of Marseilles was frightful, that of Toulon struck me as simply murderous. Although Toulon has a background of mountains, the city itself is situated on a flat plain, four feet only above the level of a tideless sea. The consequences arising from imperfect drainage, with a natural want of slope, are that the sewers have only a fall of eighteen inches. So, with a sluggish movement, the filth of the town drops into an almost stagnant sea. What is worse, is that at the points where these drains flow they are only

covered with a plank, and the filth, disgusting to the nose, impresses itself on the eyes.

"You not only then smell, but you see the garbage of Toulon. Just fancy people living in this city of quite eighty thousand inhabitants without the faintest glimmer of common-sense in regard to public hygiene. Toulon must be inhabited by people who utterly ignore every precaution which health requires. Their habits, both in their houses and in the public streets, are indescribably filthy. The plain English of it is about this: that it is impossible for people who live on fruit, who drink all kinds of poor fluids, who sleep in dirt and nastiness, who breathe an air polluted by the sewage of the town itself, and rendered doubly poisonous by the excreta left by the training-ships, to escape cholera. The

marvel is that this disease did not find its birth here years before. Toulon has always been a breeding place of disease. Small-pox, when it broke out in Toulon, was always of a malignant type, and more difficult to stamp out than elsewhere. The natural death-rate is invariably high, and likely to be increased at any time by diseases."

There are fears of the pestilence coming to our shores—let the authorities in our cities and towns be warned in time, and institute such thorough hygienic measures as shall be purifying in all quarters, especially those of the poor. The carelessness of the well-to-do in regard to the sanitary condition of the kitchens and back-yards is surprising, but a little fear in expectation of the devastating cholera may be salutary and instructive.

ODE TO THE CUCUMBER.

[A SUGGESTION *apropos* TO CHOLERA].

COOL, crispy, verdant, luscious fruit,
Though scourged with wittlings' stripes,
For love thou need'st not press thy suit—
Thou holdest us with gripes.

What time thou'rt in the market-place,
A dozen for a nickel,
Forbidden fruit with tempting face
To get us in a pickle;

Or lying near the garden path,
Some simple lad, in frolic,
Purloins thee, bringing down the wrath
Of conscience and of colic;

Or sliced in vinegar in haste,
Thou makest all food sweeter—
Thus doubling up the joys of taste,
And doubling up the eater.

Child of the dew, from Asia's clime
Dyspeptics may deride us;
We'll not expose thee in our rhyme—
Thy wrongs are all inside us.

Well may revenge heal all thy smarts—
A vengeance gastronomic;
Thine, unlike crimes that weigh the heart,
Lies heavy on the stomach.

Thy slain are scattered o'er the earth,
Puissant Ku-Klux cumber;
Thy form, with praise of vanished worth,
Should mark their place of slumber.

And shall we rear this fruit again,
And of it be partaker?
We taste, and answer in our pain,
"Yes, for the undertaker."

THE WATER SUPPLY AND ARCHITECTURE OF POMPEII.

A WRITER who has visited that ancient city of Southern Italy, whose marvels seem to be unlimited as excavations proceed, thus describes his impressions:

"Another striking thing is the absolute

cleanliness. You may say that the dirt has all been taken away by the Italian Government. That is true, but it is quite evident that in the old times it never was there. Our modern houses are not made to be clean, as were the Pompeian resi-

dences. The walls, the floors, every corner of their homes, were finished with the most admirable workmanship. In their rooms no plaster ever fell, for it was of such excellent material, and so well put on, that it soon became like marble. They had no wooden walls, no cracks where dust could penetrate. Water for cleansing was found in every part of the house, and ran off through perfect drains. All the tables and bedsteads were of marble or bronze; even the well-curbs and the borders of the flower-beds were of hewn stone. Hygiene must have come naturally to the old Pompeian; he evidently had no chance to get a typhoidal attack; the only class of diseases he could not provide against were the eruptive, and one of these carried him off at last. . . .

"The excavations are going on steadily, and are admirably managed. It is a delight to see one room after another revealed to the light of day. The authorities are now beginning to replace the charred timbers of the roofs with new ones. In this way some second-story balconies are kept in place, instead of being allowed to fall down as formerly. Over some of the most richly decorated houses the roofs are restored exactly as they were, with tiles made after the ancient patterns. . . .

"You would be astonished at the size of some of the Pompeian houses, and of the rooms and spaces they inclose. They look small because they are so empty, but when you measure them you find them very spacious. Houses of thirty

and forty rooms in the first story are not uncommon. The great space was the *atrium*, often thirty-five to forty feet long, having an opening for light in the centre of the roof, and just under this a marble-lined basin, raised above the floor, into which the rain fell, and on the margin of which were placed bronzes and vases. Out of this opened bedrooms, and at the end a reception-room and dining-room. Beyond these was a peristyle, or court, surrounded by from eight to twenty columns, thus making a broad corridor running all around. Some of the peristyles were eighty or one hundred feet square, with a great variety of rooms opening into them. Beyond the peristyle was the garden, sometimes one hundred and fifty feet square, or more, with all sorts of arrangements for plants and fountains. A good many of the elaborate niche-shaped fountains are still perfect. The street entrances to some of the houses are ten to fifteen feet in width, and had quadruple or four-leaved doors. In fact, so spacious are these dwellings on the ground floor that it is generally believed that the upper story rooms were rented out. . . .

"The floors of the first and second stories were of cement in which patterns of mosaic or tessellated work were laid. Many of these floors are uninjured. . . . The houses were admirably planned to save space; and the decorations, mural and otherwise, were far beyond our conceptions of the art of ornamentation. The workmanship, especially the plaster and stucco, was much better than can be produced by our modern craftsmen."

A REMEDY FOR PARTIAL DEAFNESS.

A YOUNG lady who recently came to dwell in my family stated that, for nearly six years, she had not been able to hear with the left ear when a finger stopped the right ear, unless a person were speaking in a loud tone of voice. I hinted carefully that the accumulation of wax in an ear sometimes will render a person nearly deaf. But that was not

the difficulty with her ear, she stated, in a very decided manner, "as I always," said she, "keep my ears scrupulously clean." I cautiously asked if she would allow me to look into her ear. The reader may imagine her blank amazement when I told her that her left ear was literally plugged up tight with hard wax as black as pine tar! Indeed, the wax had be-

come so hard that it was almost impossible to thrust an ear-spoon into it. For six years past she had been accustomed to thrust in her little finger to remove the wax, and, by repeated pressure, the end of the finger had forced the wax inward until there was a solid plug of hard wax an inch in depth. The skin all around this hard wax was sore and covered with matter. The interior of the ear was so sensitive that as soon as the little instrument touched the wax the slight pressure of the wax on the ear would produce intense pain. I worked more than an hour by way of trying to remove the wax; but the operation was so painful that I was obliged to desist. She then reclined on the sofa, with the left ear upward, into which were dropped about eight or ten drops of pure sweet oil. She remained in that position for two hours, when the wax had become so soft that it was readily removed. When she retired to bed at night, she said that she filled the ear full of oil, so that it ran out the next morning when she turned her head over. After the ear was thoroughly cleansed with warm rain-water and a little soap, she could hear quite as distinctly as with the right ear. Two days later, while she was sitting on the opposite side of the table, I whispered as low as I could and hear myself what I

said, and she could hear equally well with both ears.

I found by trial that I could not see the wax distinctly until I had adjusted her head so that the sun could shine directly into the ear. One can not see the end of the orifice in an ear unless he will take hold of the head of the person and adjust the ear so that the sun can shine directly to the bottom. The end of even a small finger is usually so large that it will crowd the wax inward so far that the finger-nail can not remove it. There is no doubt that partial deafness is frequently caused by forcing the wax inward and eventually plugging the ear so closely that one can not hear ordinary conversation.

Recently, an ear of one of my sons became so inflamed that he could not hear. A physician examined and "doctored" it for several weeks, when he stated frankly that he did not think the difficulty could be removed. Another physician told him that the "cavity was jammed full of wax." A little oil was applied to soften the ear-wax, after which it was scooped out with an ear-spoon. Soon after the wax had been removed he could hear as well with that "deaf ear" as with the other, and the hearing, ever since, has been as acute as at any former period of life.

ESS. E. TEE.

FOR BOYS.

BOYS, let us have a sensible talk about life. Why is it that society insists that woman shall be pure, and does not care if man, as a rule, stifles his moral nature, and, as the world terms it, "sows a few wild oats"? When will the bell of progress ring out the false notion that our boys shall have liberty and license, and our girls hardly have a chance to earn their daily bread and be respected. The harvest time is sure to come, and with it the fruits of our doing.

Young man, when you get ready to settle down in life and have a home of your own, you will choose a companion.

If you have led a pure life, you are worthy of a good woman's love. If not, how dare you ask a pure-minded woman to share your lot, to be the mother of your children, who will, perhaps, bring her trouble and sorrow, through inherited vices and the evil consequences of your life, that may sadden the home hearth for generations to come.

The consequences of our acts are too lightly regarded by many, but it is of the most vital importance that our influence should be pure and elevating, else life is a failure.

Boys, begin when you are young to do

right from principle, as soon as you really understand right from wrong. Don't wait until you are men to be true to the best that lies in you. When you have reached thoughtful boyhood, take an inventory of yourselves; then count up and see how much you are worth. Remember that only sterling virtues count. Then try to erase the evil and encourage and build up all that is true, noble, and useful in your character. To-day is your opportunity. The present, which will soon be your past, will bring its happy or painful memories. Don't wade through folly and vice until satiated, and in very disgust you give them up and choose the right way. "Better late than never," I grant; but oh! the scars we have to take with us if we sin, and they are always making us think of "what might have been."

Boys, don't wade through the mire and slough of sin, only to find it does not *pay* in any sense. You will do well to aim to have every thought pure. We can not say good things if our thoughts are evil. God's gifts are for us to use, not abuse. You should feel ashamed to do anything you would dislike to have your sister do.

Every true mother delights in a true-minded, conscientious boy. He is the promise of a noble manhood and an honor to her. You must preach the true gospel of saving yourself, and help others to the right way by the elevating influence of your life, and thus show to every one that the right way is the best and most pleasant for boys and men.

MRS. KATE WESTON.

INUNCTION, or the oil-bath, should not be given until after the person has taken a bath for the purpose of cleansing the skin. It may be a tepid sponge, a hot sponge, or almost any other form of water bath, and while the skin is still moist and supple, the oil should be applied and well rubbed in. It is well to begin with the extremities, so as to secure a thorough circulation of blood in them. The oil should be rubbed in by friction of the surface, and gentle kneading with a movement similar to that em-

ployed by fullers in working their goods. After the whole surface has been treated in this manner, the flesh should be wiped with a clean, dry towel to remove any surplus of oil. The best oil for this use is refined cocoanut oil, but should never be used when in the least tainted with the odor of decomposition. If the oil be kept in a cool place, and covered with lime-water, it will remain sweet for a long time. It may also be preserved by melting and corking tightly in small bottles, each of which should contain only a sufficient quantity for a single bath. Pure olive oil is also excellent for this purpose, but it is less limpid and agreeable to most patients than cocoanut oil. Vaseline, cosmoline, and other mineral products are not to be recommended, because they are not absorbed by the under tissues, while lard in any form is objectionable.

FOR STUTTERERS.—A gentleman who stammered from childhood almost up to manhood gives a very simple remedy for the misfortune: "Go into a room where you will be quiet and alone, get some book that will interest but not excite you, and sit down and read two hours aloud to yourself, keeping your teeth together. Do the same thing every two or three days, or once a week if very tiresome, always taking care to read slowly and distinctly, moving the lips, but not the teeth. Then, when conversing with others, try to speak as slowly and distinctly as possible, and make up your mind that you will not stammer. Well, I tried this remedy, not having much faith in it, I must confess, but willing to do almost anything to cure myself of such an annoying difficulty. I read for two hours aloud with my teeth together. The first result was to make my tongue and jaws ache, that is, while I was reading, and the next to make me feel as if something had loosened my talking apparatus, for I could speak with less difficulty immediately. The change was so great that every one who knew me remarked it. I repeated the remedy every five or six days for a month, and then at longer intervals until cured."

NOTES IN SCIENCE AND AGRICULTURE.

Nature of Phosphorescence.—In his "Science Notes," in a recent number of the *Gentleman's Magazine*, Prof. W. Matthieu Williams says: "My note on this subject last July was preceded by one of the researches of Prof. Radziszewski. I learn that he has actually separated the luminous matter of the *Pelagia noctiluca*, one of the multitude of species of marine animals that appear like little lumps of jelly, and produce the phosphorescence of the sea. He evaporated to dryness 180 specimens, and from the dry residue dissolved out, by means of ether, a peculiar kind of fat, which, mixed with potassa, gives out, when shaken, phosphorescent flashes. This is exactly what happens to the living animal. When quiescent it is not luminous, but if shaken or rubbed it flashes. I have collected and examined a great variety of these animals at different times, the most remarkable occasion being one morning after a magnificent display of marine luminosity in the Mediterranean, a few miles off the shore of Algiers. The surface of the sea was incrustated, I might almost say, with countless millions of small jelly-like creatures, of spherical, ovoid, oblong, dumb-bell, and other shapes, varying in size from a mustard-seed to a pea. A bucketful of water, taken over the ship's side, appeared like sago broth. They were all internally dotted with a multitude of what I suppose to be germs, that would be liberated on the death and decay of the parent. The practical importance which I attach to the study of the luminosity of these creatures is the fact that they supply light without heat. The costliness of all our present methods of artificial illumination is due to the fact that we waste a largely disproportionate amount of energy in producing heat as well as light. This wastefulness may be illustrated by supposing that we obtain a pound of the phosphorescent fat of the *noctiluca* and divide it into two equal halves, making one-half into candles to burn in the ordinary manner, and using the other half to give out its light by cold phosphorescence. I am not able to give precise figures, but I believe that I am well within the truth in estimating that the candle would dissipate 95 per cent. of the potential energy of the fat in the form of heat, giving but 5 per cent. of the amount of light that the other half pound would emit as cool phosphorescence."

In a Lecture on the "Dawn of Mind," delivered at Owens College, Manchester, England, by Mr. G. J. Romanes, he claimed that the whole structure of mind took its rise from excitability, or the aptitude to respond to nervous stimulus, which was a characteristic of all matter that was alive. Next to excitability, in an ascending scale, were the functions of discrimination and conductivity. Discrimination he believed to be a function of all nerve-cells; it was the power to dis-

criminate one stimulus from another, irrespective of the degrees of their mechanical intensity. Conductibility was a function which admitted the possibility of reflex action, and of the co-ordination both of muscles and of ideas. In the faculty of discrimination they had the physical aspect of that which elsewhere was called choice; because choice, if it was analyzed, was merely the power of discriminating between one stimulus and another.

The Setting of Plaster of Paris.

—In a recent note, Mr. M. E. Landrin, in "Comptes Rendus," described the so-called *alum-plaster* which sets slowly and becomes very hard; and he now discusses, in their practical bearings, the causes that hasten or retard the *setting* of plaster. A microscopical examination gives three stages: 1. On contact with water the plaster takes a crystalline form. 2. The water dissolves a certain amount of the sulphate of lime. 3. A portion of the liquid evaporates by the heat disengaged, a crystal is formed, and this seems to determine the crystallization of the whole. At the end of a certain time after this the plaster acquires its maximum hardness. Its formula is then $(\text{SO}_3, \text{CaO})_2\text{HO}$, as determined by experiment. The best effect is obtained when the plaster contains about twenty per cent. of water. In practice this number is often exceeded, on account of rapidity of *setting*. In damp places, where the setting is necessarily slow, as little water as possible should be added.

Causes which Retard the Setting.—This may be done by an excess of water; but, as this is inconvenient, it is better to use substances like gum, glycerine, gelatin, etc., which serve to separate the crystals. It is a singular fact that inert materials, like sulphate of baryta, sand, oxide of iron, etc., only diminish the solidity of the mass without producing any useful effect. The use of sulphuric acid, or alum cements, as recommended by the author, will be very useful in this connection.

Causes which Hasten the Setting of Plaster.—Stucco-workers often wish to hasten the *setting* of their plasters, and accomplish it by placing on the surface of the mortar anhydrous salts, like sodic chloride, sodic carbonate, cupric sulphate, etc., which absorb water. The *setting* of very dry plasters is determined by a mixture of ordinary plasters. One of the latter *setting* determines the crystallization of the whole.

Influence of Lime.—During the calcining of plaster, a part of the carbonate of lime is changed into lime, and the author finds the effect of the latter to be very favorable in the *setting*. The lime absorbing water raises the temperature, and gives the plaster a greater hardness. Ordinary plasters, containing ten per cent. of lime, give very good results, polish well, and resist the action of atmospheric

agents. The author has made cements, with seventy-five per cent. of lime, which are very hard, and of small specific gravity, rendering them well adapted to light constructions.

Opening of an Electric Street RAILROAD.—The first electric railroad for public use in America went into operation in Cleveland, O., July 26th, in connection with the East Cleveland Street Railroad Company, that has just completed a mile road. The experiment was so successful that the company expects to change the entire system into electric roads. The system used was a combination of the Brush and Knight & Bentley systems, and the current was carried on underground conductors, laid in conduits like those of cable roads. The cars were started and stopped and reversed with the greatest ease. Any number of cars, up to fifteen, can be run at one time on a single circuit, and from one machine.

A Phosphorescent Eye-Piece.—Herr Lommel, the German chemist, etc., has applied the luminous paint of Balmain to spectroscopy. In the plane of the cross-hairs of an ordinary spectroscope a piece of microscopic slide glass is placed, one portion being covered with Balmain's paint or other phosphorescent substance. The slit of the spectrum is so modified that the solar spectrum is thrown on the phosphorescent slide after it has been rendered self-luminous by exposure to daylight or a lamp. Becquerel's phenomenon can then be studied. The dark bands in the ultra red are shown to be true absorption bands due to the phosphorescent substance employed. A greenish-blue phosphorescing sulphide of calcium gives a more vivid spectrum than Balmain's paint. A paint covered with it, and kept four days in the dark, will show the bright phosphorescent ultra red spectrum in a beautiful manner, while Balmain's paint hardly shows it after being two days in the dark. This application of phosphorescent bodies to spectroscopy was, if we mistake not, suggested a year or two ago by Abney.

Oiling Black-Walnut.—For a fine oil coat on black-walnut, first make what the varnishers call a filler of whiting and burnt umber, in proportions to make the color correspond with the color of the wood. Rub these up with boiled linseed oil, and with it about one tenth of the quantity of whiting and umber, and litharge as a drier. Rub this into the surface—not with a rag—and allow it to dry. One coat will probably be enough. Then rub the surface with boiled oil. After this is dry, if a higher finish is desired, a French polish rub will answer most wants.

The New Orleans Exposition.—Most of our readers know that a Great Exposition is to be held at New Orleans, but perhaps the scale of its arrangement is not comprehended, and it may surprise them to know that the buildings are larger than those erected for the Philadelphia Centennial, while the

exhibits outnumber those of any previous exhibition. Each of the States, except possibly one or two, will be represented by an exhibit. Congress has made a loan of \$1,000,000 in favor of this Centennial Exposition. The United States Government will make a special exhibit, the largest it has ever attempted, costing hundreds of thousands of dollars, and to that end a mammoth building is being erected in the group of Exposition buildings. The Mexican Government has appropriated \$200,000, and will erect a special building for its unique display. The Central American republics have been aroused from their long slumber, and will be fully represented for the first time among the great nations of the earth. At the Exposition one may learn more about the natural resources of those regions than by an ordinary visit to Mexico or Central America. To lovers of music a visit to the Exposition will be highly gratifying, as there is a music hall capable of seating 11,000 persons, and a stage large enough to hold 600 musicians. Grand concerts will be given during the season. Besides this, the fact ought to be known that New Orleans is the only city in the Union that has had an established opera during half a century. Nor is this all. Strangers think themselves well paid by making a visit of pleasure to the quaint old city at any time. During the Carnival season tens of thousands of visitors flock to the Crescent City to see the gorgeous pageants prepared annually at an expense to the citizens of from \$100,000 to \$200,000. This lavish expenditure of money is for the gratification of strangers and home folks, and the displays are absolutely free. The citizens of the Southern metropolis, who do such large things in such a large way, have pledged their word to make their World's Fair the crowning event of the century, and they will do it.

Tea Culture in the South.—There have been singular mistakes, made from the first, in regard to tea culture in the South. Some twenty-five years ago the Government thought it would like to know whether the Chinese tea would grow in the South, and they sent an agent to China to get seeds. At that very time hundreds of tea-trees were growing in the South, producing seeds, and nurserymen were raising plants for their trade, both from these seeds and from cuttings. Any nurseryman could have told the Government that the tea-plant would grow very well in the South, and on a year's notice could have furnished, under contract, as many plants as desired for distribution. But the seed came, plants were raised and distributed everywhere, and that was about the last of it. During the last few years the Government again tried its hand. Again it did not appeal to nurserymen or tree-growers of experience, and again we have the result in the announcement that it "can't be done."

Now, this is all nonsense. The tea-plant has been grown successfully, and is still growing successfully, in many parts of the South.

Tea has been made from the leaves as good and as cheap as the Chinese ever made. Let the Government give but a bounty—protection, if you like to call it—for a few years for private enterprise, and we will guarantee the success of the Chinese tea-plant as a tea-product in America.

We do not need hundreds of acres for experiments. Give premiums for an acre, or half an acre, and for teas of various qualities from the leaves, and give guarantees that these premiums shall continue, from year to year, till experience is improved on, and there will be no more reason found against the permanent success of the enterprise than there was against beet-root sugar culture in France. That would never have been a success but for the protection Napoleon gave it.—*Gardeners' Monthly*.

[But the effect of "protection" would be to raise the price of an article deemed "necessary" in domestic life, and thus the cost of living would be increased among the poor as well as rich. Better that such articles were not protected for the sake of nursing into existence their home production.]

Origin of the Orange.—A Florida exchange gives the following abstract of a lecture delivered in that State by Prof. Gunning: "Everything," the speaker said, "writes its history," and his task was to read the history recorded in an orange. "What is an orange? and how came it to be? Dissecting an apple, an orange, and a grape, the structure of each was pointed out. The ten little dots seen in the cross-section of an apple show that the fruit sustains certain relations to the flower. In a longitudinal section we can trace that relationship. We see that the portion of the fruit outside of the dots was formed by a thickening of the calyx or cup. The fruit between the dots and the core was formed by a coalescing and thickening of the base of the corolla and stamens. The core is the extended base of the pistil. Every part of the flower has been wrought into the fruit. In the grape neither flower-cup nor corolla nor stamens have been wrought into fruit. The pulp holding the seeds is the thickened pericarp. This plan makes a berry. The orange is after the plan of the grape and not of the apple. The orange is a berry, and it differs from other berries internally in the longitudinal segmentation. What does this segmentation mean? The orange is one of the most variable of fruits. When it grows on a rich soil it sports into many varieties. The 'navel' is a monstrosity fixed as a variety. A navel is two oranges, one being aborted. All organisms, plant or animal, are liable to revert or slip back into an earlier condition. When you see corn, with silk and tassel all together, you know what it means. It is a lapse into the wild state. Now if you were to see an orange split at the bloom end into a number of pod-like segments, what would you say is the meaning? It would not do to dismiss it from the mind as a 'freak of nature.' Such oranges

are not uncommon. The internal segmentation cuts through the rind and affects the whole upper portion of the orange. The rind passes in between the segments. This is a tendency to what science would call the 'apocarpous' condition. It is the earliest and lowest form of fructification known to the botanist. It is shown in that primitive style of flower, the buttercup. The pistil, the inmost portion of the flower, represents a leaf folded in and united on the edges. In the buttercup a whirl of leaves have formed pistils, each pistil being distinct and, when ripe, pod-like. The orange, which separates at the bloom end into pod-like segments, is a lapse toward the structure of the buttercup. The separation is on the plane of the normal segments. We must infer that the segmentation which characterizes the rind-covered berry called the orange is the vestige of our ancestor which bore its fruit in pod-like clusters. The orange was bean-like before it came to be a berry. In the course of time the pods coalesced and passed into pulp, all but a vestige of which remains as a thin membrane."

Fair Managers, take Notice.—

"No privilege for the sale of liquors, or games of chance, or side-shows will be sold." Thus reads one of the rules in the premium list of the Indiana State Fair, to be held in Indianapolis September 29th to October 4th. This is as it should be, and we doubt not that decent people will be glad to see such a rule strictly enforced, and more will attend fairs where it is enforced.

A Sagacious Cat.—A San Francisco newspaper publishes an incident of cat cunning that smells of journalistic invention. A reporter fell in with a lady, who owns the feline wonder, and this is what occurred:

The lady took a bacon-bone and threw it out in the yard. Immediately Tom got up, and taking the bone, carried it near the hole, and began rolling on it and rubbing himself with it very industriously. After he had greased himself well, he left the bone near the hole, lay down in front of it, and appeared to go to sleep.

"Now," said the lady, "he will stay there until dark, and all through the night, and in the morning there will be half a dozen rats laid out behind him."

The reporter asked what he greased himself for, and the lady said: "You see the rats smell him if he remains there in his normal condition, and won't come out; but the grease of the bacon-bone kills the cat-smell on him, and the rats are deceived; and when they come out, attracted by the smell of bacon, he catches them. When he can't get a venison-bone his catch is enormous, sometimes as many as twelve rats' being found dead in the morning. As soon as any of us get up in the morning he will scratch at the door to be let in, and will, by his mewling, induce us to go out and see his handiwork. Come round and look over the fence as you

go down to your office in the morning, and see how many prizes he has drawn in the rodent lottery."

The reporter passed by the back-yard the next day, and sure enough there lay seven dead rats, side by side, ready for inspection.

Results in Wheat-Growing With AND WITHOUT FERTILIZING.—The following results concerning the wheat crop are extracted from the proceedings of the "Royal Agricultural Society of England," (14th Vol., 1878). The experiments were made by Messrs. Gilbert and Lawer, well known in English agriculture. The area experimented on comprised thirteen acres. Wheat and barley were grown on the same plat year after year (for 24 years) without manure, and with different kinds of manure, annually :

	<i>Per Acre.</i>
The first plat unmanured continuously for the first 12 years, averaged.....	15½ bus.
The first plat unmanured continuously for the second twelve years, averaged.....	12½ bus.
The first plat unmanured continuously for the whole twenty-four years	14 bus.
The second plat (with mineral manures), 200 pounds sulphate potash, 100 pounds sulphate soda, 100 pounds sulphate magnesia, and 350 pounds superphosphate lime, for the first twelve years, averaged	18½ bus.
The same for the second twelve years, averaged.....	13½ bus.
The same for the twenty-four years.	16½ bus.
The third, ammonia salts alone for 1845, and each year since (mineral manure for 1844), that is, equal parts of sulphate and muriate ammonia of commerce, average first twelve years.....	22½ bus.
The same, average second twelve years	21½ bus.
The same, average for the twenty-four years.....	21½ bus.
The fourth, ammonia salts and minerals (the same minerals as in No. 2, and 600 pounds ammonia salts), average first twelve years.....	38 bus.
The same, average second twelve years	37 bus.
The same, average for the twenty-four years.....	37½ bus.
The fifth, farm-yard manure, (fourteen tons every year) average first twelve years.....	35½ bus.
The same, average second twelve years.....	35 bus.
The same, average for the twenty-four years.....	35½ bus.

Comparative Production from POTATO-EYES.—A correspondent of the *Country Gentleman* writes: "A potato has three crops in itself—an early, a middle and a late one. The cluster of eyes at one end

will ripen one to two weeks earlier than the central eyes. The two or three eyes immediately surrounding the root end should in all cases be discarded in growing for home use or for market. They produce mostly small potatoes, and if large they are watery and soft. My usual method is to set one man to cut off the root end and another to cut off the 'eye end,' thus forming three heaps. The root end heap goes to the hogs. My great trouble is to get them cut close. All the waste flesh goes into heaps for cattle or hog feed."

Nationality of Immigrants.—Joseph Nimmo, Jr., Chief of the Bureau of Statistics, says: "During the month of November there arrived in the customs districts of Baltimore, Boston, Detroit, Huron, Minnesota, New Orleans, New York, Passamaquoddy, Philadelphia, and San Francisco, 42,901 passengers, of whom 35,393 were immigrants, 4,760 citizens of the United States returned from abroad, and 2,748 aliens not intending to remain in the United States. Of this total number of immigrants, there arrived from England and Wales, 4,245; Ireland, 1,997; Scotland, 551; Austria, 1,076; Bohemia, 462; Belgium, 133; Denmark, 430; France, 378; Germany, 14,360; Hungary, 1,575; Italy, 1,344; Netherlands, 197; Norway, 639; Russia, 818; Poland, 182; Sweden, 1,058; Switzerland, 840; Dominion of Canada, 4,877; and from all other countries, 231. The total number of immigrants arriving in the above-named customs districts from the principal foreign countries during the month of November, 1883, was 35,393, and the number arriving during the eleven months ending with November, 1883, was 536,430."

A New Fire Proof Dress.—Experiments have been made in the grounds of the Alexandra Palace with a new fire-proof dress which Mr. Oersberg, a Swedish mechanic, claims to have invented, and Capt. Ahlstrom, a compatriot, to have matured and fitted for practical use—a dress, which, it is stated, will enable the wearer to dash with impunity into the fiercest fire for the purpose of saving life or property. The dress, which very much resembles that worn by divers, is made of strong canvas, double, and so quilted that water can run freely between the outside and inside in all directions. The inner dress has a space between it and the body of the wearer, and Captain Ahlstrom claims for the air that fill this space the character of a perfect non-conductor of heat. Hose worked by the Palace fire brigade were attached, one to the back of the dress and the other to the top of the helmet, and when all was ready the apparently very hazardous performance commenced. A large fire, made with pieces of old wood steeped in petroleum, was lighted, and Captain Ahlstrom, protected by his dress, walked through it without injury.



FOWLER & WELLS CO., Publishers.
H. S. DRAYTON, A.M., M.D., Editor.

NEW YORK,
OCTOBER, 1884.

THE ANTECEDENTS OF PHRENOLOGY.—No. 2.

ANCIENT philosophy was deductive, hence hypothetical and speculative, in the main. Modern philosophy is for the most part inductive, hence practical and demonstrative. The science of today has evolved the truth of many theories that were accepted by the learned of two thousand years ago, and widened greatly the sphere of their application. When the close student looks into the records of antiquity and compares the art and science of India, China, Assyria, Egypt, Arabia, Greece, and Rome with the art and science of our own era, he is astonished by the multitude of parallelisms, and he is prompted to echo the declaration of the Hebrew prophet, "Is there anything whereof it may be said, See, this is new? It hath been already of the old time which was before us."

So, as we have shown in our last article, the system of estimating character by the form of the head and face had its antecedent in the remote past, and literature and tradition show that it was accepted and practiced as an art of high importance. The Chinese claim to have had for thousands of years wise teachers

who examined the head and advised with regard to education and training. The Greeks had physiognomists who went about giving descriptions of character for a fee.

The writer, in the article to which reference was made in the September Number, quotes Brown and others in relation to "Prehistoric Trepanning," or the practice of some of the ancient race in removing small pieces of the skull for the relief of supposed disease of the brain. This fact in itself may be taken as an evidence, not only of a prevalent belief among those rude people that the substance inclosed by the skull was chiefly concerned with intelligence, but also that the idea was current that certain parts of the brain were subject to special affections. When the trephine was introduced in modern surgery it was deemed by the learned world an important and special outcome of modern invention, and even archæologists knew not then that the ancient cave-dwellers were conversant with a method of trepanning.

The Western *savant* assumes, like too many writers on the functions of the nervous system, to know the nature of parts of the brain concerning which leading authorities will venture no opinion. For instance, he coolly asserts that the ventricles are of no functional importance whatsoever, being merely spaces left behind during the processes of growth and development." We are of opinion that these openings are of importance to the integrity of mental action, having, like all other parts of the body, some function. In life they are filled with fluid, and it may be that such fluid bears a relation to the ventricles that the acetic solution in the galvanic battery bears to the cell that incloses it. Galen, Albert

Magnus, Thomas Aquinas, Gordan the Scotchman, Huarte of Spain, Porta of Italy, Descartes, and Willis of Oxford are among the illuminati of history who believed in the multiple functions of the brain. Willis is called by some the father of Phrenology, because of the definiteness of his opinions on the influence of cerebral condition upon mental manifestation. Dr. Benjamin W. Richardson speaks of him as "the illustrious Thomas Willis, he who first gave the world of science the first true light on the function of the different parts of the brain." He mapped out the brain somewhat after the Aristotelian method, but aside from what may be regarded as fanciful he set forth clear views of the nature of insanity, and showed how certain phases of it were dependent upon brain disease. It was he who discovered the "vaso-motor system" of nerves, which alone would entitle him to the respect of the learned world as a systematic and careful investigator, while his treatise on Insanity lay the foundation to what is known in the treatment of disturbed minds on scientific and natural principles.

The objector may cynically inquire why these distinguished men did not make practical applications of their systems and thus put them to the proof? We would answer that we have little doubt but that in nearly every case they did apply them, and it is obvious enough that Aristotle's scheme was so generally accepted, because it was seen that men of good intellectual endowments, as a class, possess broad or prominent foreheads. The mediæval scholars were not fools, by any means; the wisdom of their generation concerning the affairs of life compares well with the wisdom of this latter day; their metaphysical formulations were

the source of the best metaphysical reasoning in modern treatises, and if the truth be told, Stewart, Brown, Reid, Hamilton, Mills, and Spencer, in their essentials of thought, scarcely outrank Jamblichus, Thomas Aquinas, Duns Scotus, Abelard, Bruno, Bacon, Locke, Descartes, and many others. In fact, when the truth is told, it is found that the most brilliant predications of the nature of mind or spirit, and of the laws and relations of thought in our day, are but new interpretations of principles enunciated hundreds of years ago.

In some cases it is found that an old observer sought to arrange his views in a definite system, so that others might put them to use in forming an estimate of character. The Physiognomies of Theophrastus were more than repeated by several students of character in the middle and later periods of the Christian era. One, Giambattista della Porta, of Naples, an optician of eminence, published a work entitled "De Humana Physiognomia," in which he made comparative physiognomy a conspicuous feature, anticipating Lavater and Redfield in many respects. He gives a catalogue of the instincts common to man and animals, and in presenting similarities of character compares, for instance, the head of that brusque old Roman, Vitellius Cæsar, with that of the owl, and the head of an idiot with that of a fish. According to him a middle-sized head of round form, flattened somewhat laterally, and projecting posteriorly—what might be termed a long or elliptical head—was regarded by many observers of his time as the best shape. Porta believed that memory occupied the occipital region, and he also placed energy there—a view that is not wanting in support among anthropologists to-day, it be-

ing largely conceded that those who possess a well-marked development of back-head possess the elements of enterprise, courage, and tenacity.

We find that Porta had disciples who applied with confidence his principles in the examination of heads. Even in the solemn seat of justice they were illustrated, for it is recorded that the Marquis Mascordi, who presided as the chief justice of the criminal court at Naples in the eighteenth century, was in the habit of examining the heads of prisoners that were brought before him, especially giving attention to the cranial development of those who, after conviction, persisted in their innocence. Of his recorded sentences this is a specimen, as translated from the original Latin: "The witnesses having been heard for and against, the accused persistently declaring his innocence, his face and head being examined, we condemn him not to the galleys, but to imprisonment."

ARCTIC EXPEDITIONS—THEIR HONOR AND RESULTS.

THE finding of the Greely party by the expedition fitted out under the auspices of the Government, has revealed fresh phases of the loss and suffering incident to Arctic exploration. Most of the expeditions that have been fitted out by Americans have resulted in disaster, and yet nearly every year new parties are organized, and the cry is, "To the North." It is stated that a German savant has advised the establishment of successive stations, one after the other, approaching the Pole to make its attainment certain. Fully eighteen years ago this method was advocated in this *JOURNAL*, and by us, as the only feasible way of accomplishing

an object that the spirit of modern adventure seemed to be determined on. One of our correspondents, Mr. J. P. Noyes, of Washington, has been accorded space in our pages two or three times for the discussion of the Arctic question, and he has urged an establishment of successive stations within easy reach of each other, insisting that by so doing the Pole would be reached in a comparatively short time, and at an expenditure of money and life far below that which has been sadly recorded during a few years.

In the August Number of the *JOURNAL* for 1874, Mr. Noyes said: 'Nearly eight years since, I published a communication in your columns entitled 'How to Discover the North Pole.' I still hold to the ideas therein advanced as being the most feasible, and promising the best success. The plan therein put forth was to go with one or more steam-vessels, well manned and equipped, as far north as possible, and there establish a base of supplies, and from that gradually to advance into the interior: when the base is well established, to have the vessel return and be fitted out the next season with fresh supplies and reinforcements; all the while operating on the same principle on which Sebastopol and Richmond and other strongholds have been taken by military forces. These places could never have been taken by cavalry raids, neither can the North Pole be discovered by any such means as have thus far been tried; at least this raiding method can be but a partial success, gaining information for the advantage of the besieging parties; they lack the required momentum to penetrate the strong barriers. Now it would seem that enough of these raids have been made and sufficient knowledge obtained of the stubborn conditions which

beset the regions lying still to the north of where the centre of magnetism seems to lie, to prompt them to try the siege instead of repeating the raid plan over and over again with such bare results."

We would render honor to whom honor is due; and as the credit seems to be given to a foreigner by some journalists, we think it but fair our correspondent shall have a hearing in the matter, through these columns at least.

It may be granted that the United States, in sending Lieutenant Greely and his unfortunate party north, was but performing an international obligation, and that the results obtained at so much cost of life and suffering are of importance second to none in the results secured by the expeditions fitted out by foreign powers; yet when we think of their positive, practical value to the race, what they at most may contribute to human comfort and weal, we are convinced that the outcome is greatly below the cost.

Livingstone, Stanley, and Brazza penetrate the heart of Africa, and expose themselves to the mephitic and simmering atmosphere of marsh and jungle; they risk their lives in carrying out a purpose at once scientific and moral, but they achieve more than had been hoped. They open up a hitherto unknown country, but a country populous and rich in undeveloped commercial resources—a country that needs but the enterprise of Christian philanthropy and of commercial interchange to be brought into relations of great reciprocal value. The explorations of Stanley and Brazza on the Congo River are the beginning of a missionary, colonial, and commercial movement of very high importance to Europe. But unless climate changes, what can be done in the ice-bound North, where living, even with

the best supplies and equipments, is attended with unspeakable suffering to the hardiest constitutions? It may be a satisfaction to have it determined finally whether or not there is an open polar sea, and what effects warm currents have upon tidal movements; but will the addition of a few items of meteorological data to our scientific fund compensate for the awful sacrifices of life, and the sorrow of heart in whole communities that follow the majority of Arctic voyages of discovery?

POLITICAL LIBERTY!

AN editorial paragraph in answer to an inquirer, appears in one of our prominent New York dailies to the following effect:

"Our understanding is that the Democratic party is in the habit of taking a drink whenever it feels like it; therefore it is not in favor of Prohibition. There is a clause in the National Platform this year which reads: 'We oppose sumptuary laws which vex the citizen and interfere with individual liberty.' We understand this to be Democratic doctrine; we subscribe to it."

This is bright! It is not strictly in accordance with grammatical rule, to be sure, but is quite epigrammatic and reads well. Doubtless the editor was satisfied with it, and many of the readers of his paper will vote it as sharp, to the point, possessing the true ring of practical logic and philosophy. But looked at from a sound, moral point-of-view, is it right and true? If it represent a principle in the creed of the great Democratic party, does it command the esteem of every intelligent, thinking man who has the welfare of his fellow-men

at heart? Is it consistent with the best and purest morality?

"We oppose sumptuary laws *which* vex the citizen and interfere with individual liberty." There is a large class in the community that is very much vexed by specific laws against thievery, embezzlement, forgery, and so on; yet somehow our legislature have concluded that such practices are injurious, and that some people suffer because of them. We wonder if there are not many people (in fact, a vast number) who suffer in consequence of the freedom with which intoxicating liquors are distributed? And we judge from the daily reports coming from courts and police stations, that the "liberty" to take a drink when one feels like it, does much to vex the citizen and interfere with true individual liberty.

We would challenge the smart editor to name any other practice that is more efficient than the drinking of alcoholic beverages, in producing results so much at war with public order and private comfort. It strikes us very forcibly that if the Democratic party were so earnest as it claims to be in the endeavor to bring about an improved condition in our affairs generally, it would nail to the foremast the pennant of Prohibition.

RESPONSIBLE FOR SIN.

IN a recent murder trial, the customary plea of insanity was made without effect. The jury, after twenty minutes' deliberation, brought in a verdict of murder in the first degree. It was fairly demonstrated by the evidence that the accused was a thoroughly bad man. He was eccentric and peculiar, and shockingly cruel in his domestic relations. But these characteristics were interpreted as the natural

results of a corrupt or depraved nature, and not the indications of brain disease. The counsel for the culprit worked hard in his behalf to establish the plea; but the intelligent court cleared away the obscurities of sophistry, and branded the crime in terms that were just, setting forth the responsibility of the accused in the clearest manner. Because a man lives in a fashion that indicates depravity does not in any degree make him less responsible for the wickedness of his life. Practical common-sense, as well as morality, declare it to be one's simple duty to control, regulate, and reform those faculties in his nature that are inclined to excess. In other words, a man is required by the precepts of common sentiment to suppress his vices and passions; to tone up and purify his habits. An orderly and useful life is the result of self-restraint; and no man is so completely organized by inheritance that he has not some errors of faculty or disposition to correct; some tendencies essentially immoral that must be counteracted if he would have a well-poised character. In fact, the highest expressions of mind are the results of protracted culture. At the basis of greatness, there is a high degree of physical energy, that, if permitted to run wild, would end in surprising profligacy and ruin.

A WORD—in the ear of our Norristown contemporary, who conducts the *Herald* of that serene Pennsylvania town. We do not read the characters of Presidential candidates, or of other candidates, from stock wood-cuts that purport to represent said candidates' features, for we know that such representations are too often illusory and counterfeit; but we obtain an interview with the distinguished sub-

ject of political preference and predicate our views of the original physiognomy. But if such an interview be impracticable we do the next thing—get the best pho-

tograph we can and study its markings. Will our Norristown contemporary note this, and deal with us in his usual spirit of candor?



To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, bring particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE CONTRIBUTIONS UNLESS THE NECESSARY POSTAGE IS PROVIDED BY THE WRITERS. IN ALL CASES, PERSONS WHO COMMUNICATE WITH US THROUGH THE POST-OFFICE SHOULD, IF THEY EXPECT A REPLY, ENCLOSE THE RETURN POSTAGE, OR WHAT IS BETTER, A PREPAID ENVELOPE, WITH THEIR FULL ADDRESS. PERSONAL MATTERS WILL BE CONSIDERED BY THE EDITOR IF THIS IS DONE.

HERBERT SPENCER'S CREED.—H. S.—

This eminent apostle of evolution can not be regarded an atheist; he disclaims any such reputation, and frequently gives expression to warm loyalty to the Divine Power. He is rather an agnostic: that is, one who does not know the nature or character of the Almighty ruler of the universe, being unable to find out what He is, and therefore deeming it more consistent with reason to assert ignorance than to assume information on a subject infinitely beyond human reach. His leading topic of discussion is Evolution, or the development of the universe; and in all his writings it is made a fundamental principle. Of late, he has given some attention to topics in social and political life and education. His essays usually are printed first in English periodicals, and then copied sometimes into American—for instance, the *Popular Science Monthly* and the *North American Review*.

A WELL-BALANCED HEAD.—W. B. H.

—To be well balanced, a head needs not to be more than average in size; but there should be a fair proportion between the size of the body and the head. The organs in their development must approximate the average of the head; that is to say, if the head in a scale of seven be rated at six, the organs generally should approximate six. Where there is irregularity in the development, some organs exceeding six, and others falling more or less below that standard, the development in general is irregular, and can not be termed balanced. The reading of any of the Phrenological books will help you toward a practical understanding of this subject.

INDUCTIVE REASONING.—J. R.—It is said that Lord Bacon was the founder of this class of reasoning, but it is more properly said that he presented its method in a formal and distinct fashion, and developed its applications. In brief, it is the consideration of facts and things in relation to their causes or origins, or going back from effects to causes. Science makes use specially of induction. The observer collates data, the facts of nature, and analyzes them for the purpose of obtaining the reason of their existence, and ascertaining the laws of their government, their related states and applications. Phrenology was developed in this way.

FOOD AS MEDICINE.—J. H. D.—If a man be sick, the judicious physician may administer some medicine that will bring about a change in his functions, converting the diseased, irregular, hurtful state into a better, so that the organ or organs work more normally; but it is from food whence strength is derived for organic vigor and efficiency. All the medicines in the world will not build up broken and impaired tissues; it is the nutritive elements of food utilized in the blood-current that contribute to renew and vitalize the tissues. In the great majority of cases people who are sick, by adopting hygienic habits of living, would become stronger and more healthful, without having recourse at all to the druggist. Our own personal experience with hundreds of sick people substantiate this statement.

LEARNING HOW TO THINK.—*Question:* We frequently hear persons say, "Learn how to

think"; but the trouble is a great many people do not know how to go about it. Will you please throw some light upon the subject in the JOURNAL?

Answer: We might refer you to some treatise on logic or rhetoric, but we have little confidence in text-books and professed aids to thought. Many of our most distinguished writers and speakers have given little attention to text-books; but they have been, as a class, extensive readers; so we would advise you to read the best literature: that of a didactic or instructive sort, especially with a sprinkling of the best entertaining or amusing literature. History, biography, essays, science, will aid you toward thinking in a correct, methodical way. Some careful reading in metaphysics also will be helpful, for in the great authors of philosophy we find the best forms of reasoning. By such authors as Kant, Hume, Reid, Hamilton, Mill, Combe, your vocabulary will be enlarged, and your methods of using language improved.

JOHN JACOB ASTOR.—L. J. L.—Many years ago a sketch of this successful merchant was published in the PHRENOLOGICAL JOURNAL. Should you have an opportunity to consult a file of this magazine, you will find it among the early Numbers. Mr. James Parton published a pretty full biography of the man twenty years or so ago.

THE NUMBER OF MEALS PER DAY.—A Sub.—The number of meals one should eat can not be arbitrarily fixed; it must depend upon the temperament and habits of the person. We do not believe in any cast-iron rule to be followed by everybody; but we think that two meals a day are sufficient for most people. We have met some who appear to get along famously on one; but their situation as regards work and duty is more favorable than that of the great majority. For people of sedentary habits two meals are sufficient; one in the morning—a moderate meal, and dinner following the hours of active occupation. A laborer can dispose of three successfully and be strong.

ADAM'S APPLE.—J. L. S.—A large, prominent larynx, of Adam's Apple, accompanies a bony, muscular body, and intimates, if anything, strong Motive temperament. The Motive temperament is usually associated with an energetic, pushing, vigorous, and positive character; we do not often meet with persons of the Mental or Vital temperament predominant with much external expression of the thyroid cartilage.

INSTINCT IMMORTAL.—*Question:* Do you think instinct will survive death?

Answer: To say yes, would be to consent to the immortality of animals generally. Some writers insist that our instincts are intimately related to our mental natures, so that if one part, even that which is deemed a higher or spiritual nature, be immortal, the instincts must also be. The late Prof. Agassiz affirmed that science taught that instinct

may be immortal; that all things possessing the principle of life must in some way unite in continued existence. We are not able to differentiate strictly the qualities of mental expression; neither are we prepared to say with some, that the instincts are but lower manifestations of the same essential power or attribute, and that what is termed spiritual, or sentimental, or aspirational in our natures is but a different mode of action of one general principle; for this would make the propensities or animal instincts but a lower form of activity of an identical principle.

NOSE-BLEED.—N. B.—There seems to be in your case a difficulty with the circulation, which produces a determination of the blood to the head. Avoid excitement as much as possible; take plenty of outdoor exercise, so as to distribute the circulation; avoid stimulants—heating foods and drinks—as probably the hemorrhage occurs in most cases after you have been eating. Cold water sniffed up or applied externally, may suppress it. When you sleep have the head somewhat elevated.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

HAPPINESS DEPENDS ON INTELLIGENCE.—This is a fact that many, especially the young, have never taken into consideration; yet it is as plain as the noonday sun. If a man could not see, feel, taste, hear, or smell, and did not have any sense whatever, how could he be happy? One might as well talk of the sun shining without light, as to talk of happiness without knowledge. In the first place, a man can not exist without intelligence. But let us suppose that cobble rock has no intelligence; can it be happy? Is a rock as happy as birds, animals, or men? No; that is an impossibility.

Then if happiness depends on intelligence, the more intelligent we are the happier we can be. If we have twice as much knowledge in a year as we have now we shall be able to be twice as happy. If one man knows ten, or a hundred, or a thousand, or a million times more than another, he is capable of being just that many times happier.

This explains how our Father in Heaven is so much happier than we. If the Lord did not know any more than one of us, He could not be one iota happier. On the other hand, if we knew as much as He knows we would be able to be just as happy. To become as happy as our Heavenly Father we must become as wise.

Some very foolish persons have supposed that the most learned were the most miserable, and that the most ignorant were the most happy, and have proclaimed that it is "folly to be wise." If this is true,

an idiot is superior to the angels and the gods. But no person with a sound mind believes such nonsense.

Let us prove that happiness depends on intelligence, from another stand-point:—Can any man raise a crop of corn, wheat, potatoes, or anything unless he knows how? Could he go into a blacksmith-shop and make chains, tools, plows, wagons, etc., unless he knew how to make them? Or, what is more difficult, could he go into a watch-factory and make a watch without knowing how to do it? Certainly not. What can any one do without knowledge? Nothing. You can not hear without knowing how. If you were born deaf and should now receive your hearing, you would not be able to tell one sound from another. A lady who was born blind received her sight when thirty years of age. She had used a pair of scissors for years making artificial flowers and different things, but when a pair of scissors was shown to her she could not tell what they were till she touched them with her fingers. The reason is plain: the sense of touch was trained, and the sense of sight was not; or in other words, she had the intelligence of feeling, but not of seeing. People who can see can tell different colors by looking at them; many blind persons can tell the different colors by feeling them. The reason persons who can see can not tell colors by feeling is because they do not know how. Enough has been said to prove that nothing can be done without knowledge; then how can we be happy without knowing how to be happy?

Therefore, to become more intelligent is to become more capable of happiness, more perfect and more like God. If we live right we shall grow wiser throughout eternity, and consequently our happiness will have no end, but increase forever.

C. H. BLISS.

DISPOSITION AND ORGANIZATION.—

The editor of the *Medical Advance*, a monthly publication that favors independent thinking and progressive ideas on therapeutical subjects, comments in this sprightly manner on a point made by a correspondent to his publication:

“Our likes and dislikes primarily depend upon the shape of our heads. They are decided beforehand by our phrenological development. The higher reasoning faculties are located in the upper portion of the forehead. One may have fine intellectual development without having any taste for philosophy; but such a liking is possible only with a fair development of the region of reflection. Bearing these facts in mind, we have the key which unlocks the troubles of our correspondent. If his ideas are any index of his cranium, his head lacks relatively in the antero-superior portion. This by no means discounts his intelligence, but it explains his horror of philosophy. If Sir Isaac Newton had been of like mind with our correspondent he would have made sorry work with his falling apple. He did just what Dr. Church protests against: he

reasoned and wrote, and so placed the law of gravitation upon an enduring base. ‘The proper conditions’ are the things we are after and they cost thought. We must break the shell if we would get at the meat; we must crack the nut if we would find the kernel. It will not do to turn aside these vital questions, though they be knotty, as the boy did who being asked how digestion was accomplished, said, ‘Oh, I put the puddin’ in my mouth an’ it slips down down ath eathy.’ It is to clear away the ‘mysticism’ that we labor. If similia is a ‘natural law’ it can be investigated and understood. It is demonstrated as a fact, but what is its philosophy? That is the question.”

TO THE LIGHT!

LITTLE plant, in shadow growing,
Stretching toward the light,
With thy seeming destiny
Thou dost ever fight!
Onward reaching, evermore,
To the Light! For thy Right!

Soul, within the darkness, dwelling,
Yearning for the Light!
With the evil aspects near,
Arm thee for the fight!
Upward struggling earnestly,
For thy Right,—to the Light!

Spirit, with the matter mated,
Leaning towards the Light;
With the lower impulses
Never cease to fight!
Bravely, and unflinchingly,
For the Light! For the Right!

Ye, who on the thorny pathway
Catch the struggling light;—
With temptations thick around,
Gird thee for the fight!
Striving boldly evermore,
For thy Right,—to the Light!

Ye, who lie with closed-up eyelids,—
Ever 'neath the light!—
Crushed by cruel circumstance;
Rouse thee for the fight!
Onward, struggling, patiently,—
To the Light! For thy Right!

Should ye doubt a thought or action,
Bring it to the Light!
If they will not bear the test,—
Who for them would fight?
They will all your scanning bear,
In the Light, if they're Right!

GRACE H. HERR.

“THE PHRENOLOGICAL JOURNAL still holds a front place among practical journals. It discusses the questions of diet, dress, sleep rest, clean-

liness, labor, study, etc., etc.; in brief, most of the elements that enter into that problem of problems, namely, how to live wisely and well. It is eminently practical and therefore eminently valuable."—*The Educationist*.

USE OF BIG WORDS.—The article under the above heading in *THE PHRENOLOGICAL JOURNAL* a while ago, reminds me of the rendering by a young lady friend of mine of the saying, "Those who live in glass houses should not throw stones." She renders it, "Individuals residing in transparent domiciles should refrain from casting geological specimens." But, Mr. Editor, would not the following be more nearly according to the meaning of the phrase?—Individuals residing in fragile edifices should refrain from projecting indurate geological productions. CRITIC.

PERSONAL.

THE HON. CHARLES J. FOLGER, Secretary of the Treasury, died on the 4th of September. He was born at Nantucket in 1818, completed his education at Hobart College, and studied law. In 1844 he was appointed first Judge of the Court of Common Pleas for Ontario County, and in 1851 elected County Judge of Ontario County. In 1861 he was elected State Senator from the Ontario District, and served until 1869. He was President *pro tem.* of the Senate for four years, and Chairman of the Judiciary Committee during his whole term of service in the Senate. In 1869 he was re-elected to the State Senate, but resigned to accept the position of Assistant Treasurer of the United States, in New York City. He resigned that office in 1870, upon being elected Associate Judge of the Court of Appeals. In 1867, while a State Senator, he was chosen a member of the Constitutional Convention. When Chief Judge Church died, in May, 1880, he was appointed by Governor Cornell to fill the vacancy, and in November following he was elected to the place for the full term of fourteen years. In 1881 he accepted the place in President Arthur's cabinet, which he held to the day of his death. In the February Number of this *JOURNAL* for 1882 an extended sketch was published of Mr. Folger.

MARY CLEMMER HUDSON, for several years a well-known Washington correspondent, died August 18th last, from hemorrhage of the brain. She was born in Utica, N. Y., and early gave attention to literature, exhibiting superior talent as a writer of both poetry and prose. Her journalistic relations brought her into prominence, and since 1866 her letters on Washington life, where she has resided chiefly since that time, have been always popular. She was a student of mental science, and her knowledge of phrenology gave her powers of description and analysis that few newspaper writers

possess. As a rule her letters from the capital were always significant of fine perceptions, wide comprehension, and a refined insight into the subtle relations and the under-currents of human life.

THE purpose of Professor Proctor, the astronomer, in coming to America to live, is to bring up his children as Americans. He has a family of fourteen. My stars!

THE ex-Queen and ex-King of Naples, who have been in wretched circumstances since the union of Italy, are now restored to wealth by the death of the Dowager Empress of Austria, who has bequeathed to them a fortune of several millions.

MR. W. W. CORCORAN, the millionaire, of Washington, is said to be exceedingly proud of his ancestry, glorying in the fact that his father was only a poor, honest shoemaker, and he treasures the old cobbler's-shop signboard among his choicest possessions. Nothing like sticking to one's *last*.

THE **ABBÉ FRANZ LISZT**, the great pianist, we are sorry to hear, has become blind, and it is suggested that the cause of his affliction is smoking and brandy. It is said that he has been in the habit of drinking daily a great deal of liquor. The Abbé will retire to Weimar and end his days there.

DR. MARY JACOBI, of New York, has published some very interesting facts concerning the status of women in the medical profession. The census of 1870 showed 625 women physicians in the United States. The census of 1880 shows 2,432. This includes irregular practitioners of various kinds; but, irrespective of such, the increase has been very marked.

SHORTLY before her departure for Europe to attend the International Congress of the Society of the Red Cross of Geneva, which assembled in Geneva, Switzerland, on the 1st of September last, Miss Barton received the decoration and diploma of the Servian Society of the Red Cross, conferred by her Majesty Queen Natalie.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

THE two best books for a child are a good mother's face and life.

BY examining the tongue of the patient, physicians may find out the disease of the body—philosophers, of the mind.

THE premeditation of death is the premeditation of liberty; he who has learned to die has forgot to serve.—*Montaigne*.

AN observing Chinese traveller wrote home that all the upper-class American women had humps on

their backs like camels, but located farther from their shoulders.

A PERSIAN philosopher being asked by what method he had acquired so much knowledge, answered, "By not allowing shame to prevent me from asking questions when I was ignorant."

EVERY man ought to aim at eminence, not by pulling others down, but by raising himself; and enjoy the pleasures of his own superiority, whether imaginary or real, without interrupting others in the same felicity.

IT is easy, in the world, to live after the world's opinion; it is easy, in solitude, to live after your own; but the great man is he who, in the midst of the crowd, keeps, with perfect serenity, the independence of solitude.

WE are soul-bound. What though through prison bars

We hear the distant roaring of the sea,
And catch the golden glory of the stars,
And dream, like clouds and ocean, we are free!
At best we do, with foolish intents,
But gild our chains and call them ornaments!

ALWAYS suspect a man who affects great softness of manner, an unaffected evenness of temper, and an enunciation studied, slow, and deliberate. These things are unnatural, and bespeak a degree of mental discipline into which he that has no purposes of craft or design to answer can not submit to drill himself.

MIRTH.

"A little nonsense now and then
Is relished by the wisest men."

SCUM invariably rises. Remember, young man, there is always room at the top.

LITTLE Jack: "My mamma's new fan is hand-painted." Little Dick—"Pooh! Who cares? Our whole fence is."

THE most tender-hearted man we ever heard of was a shoemaker, who always shut his eyes and whistled when he ran his awl into a sole.

"WHEN I die," said Mrs. Fishwacker, "I want to be buried in good, old-fashioned style, and not burned to ashes in one of those creameries you hear of."

TEACHER—"Why are you late?" Little girl, dropping her head—"We've got a little baby at our house." "Don't let it happen again," said the teacher.

A PERSON abusing another to Charles Russell, said he was so insufferably dull, that if you said a good thing he did not understand it. "Pray, sir," said Charles, "did you ever try him?"

"MY dear wife, this man and I were inseparable friends at college. When one had no money he always used the pocket-book of the other; is it not so, Mr. Miller?" "Yes, just so, and I remember very well I was always the other."

"WHO cut down this cherry-tree?" "Father, I can not tell a lie; I did it with my little hatchet," replied George Washington. "Well, don't cut down any more," said the old man. "First thing you know we'll have a big flood. This wanton destruction of forests must be stopped."

"YOUR hand annoys me," said a gentleman to a talkative person who sat next to him at dinner, and who was constantly suiting the action to the word. "Indeed," said the babler, "we are so crowded at table, I do not know where to put my hand." "Put it in your mouth," said the other.

FAIR Patient—"Have you any idea of what is the matter with me, doctor?"

Doctor—"Why, I can diagnose your case, miss, with my eyes shut. There is nothing the matter with you except that you need rest."

Fair Patient—"Why, I have just come back from a whole month at the most popular health resorts."

Doctor—"Yes, as I said, you need rest."

WHEN your girl asks you to treat her to ice-cream tell her that you have too much consideration for her health, and give her the following "scientific" lecture: Milk in the manufacture of ice-cream is first boiled and afterward partially congealed. In the boiling, a lacteal acid of bacteria is set free, that, uniting with a hypo-sulphide of buteric oxide, again solidifies as a bi-sulphide of stumakake in the congealing. This, when taken into the system, produces peritoneal cramps, frequently ending fatally.



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

PRACTICAL FORESTRY. A treatise on the Propagation, Planting, and Cultivation, with a Description and the Botanical and Popular Names of all the Indigenous Trees of the United States, both Evergreen and Deciduous; together with Notes on a large number of the most valuable Exotic Species. By Andrew S. Fuller, author of "Grape Culturist," etc. 300 pp., illustrated. Price \$1.50. Orange Judd & Co., New York.

We have not space to spare in which to give this

book the attention it deserves. No volume relating to agriculture has come under our notice for a long time for which the public at large should be more thankful. About one-third of the book is devoted to showing the influence of forests on climate, in giving the characteristics of trees; the method of raising and transplanting seedlings; budding, grafting, layering, transplanting, and pruning deciduous, evergreen, and coniferous trees; the best time to cut timber, and how to establish, manage, and preserve forests; and the remainder is filled with brief but concise descriptions of all trees growing indigenous in our country, giving so complete a catalogue of their peculiarities that one could hardly fail to recognize therefrom any specimen presented for examination.

We have known the author for many years and have been aware of his enthusiastic love of the study of the subject he has treated in this volume, and we believe that so far as knowledge, obtained by experiment and practical observation, is concerned, there is no one in all the country better fitted for the task he has undertaken and so successfully accomplished. The education of the public as to nearly everything that relates to forest trees has been sadly neglected. The denudation of our timber lands by reckless lumbermen during the past fifty years shows this, but there can no longer be an excuse that reliable information on the subject is not easily attainable. Satisfactory as the book is, we wish that it had been made more voluminous, and trust the author, at a future time, will be able to gratify his own desires as named in his preface, and give us a volume of a thousand pages, fully illustrated and with colored plates, so far as is necessary to make a work that will supply fully any need that may arise.

IDEAS FOR A SCIENCE OF GOOD GOVERNMENT, in Addresses, Letters, and Articles on a strictly National Currency, Tariff, and Civil Service. By Hon. Peter Cooper, LL.D. 8vo, pp. 400.

Shortly before the death of the eminent merchant-philanthropist of New York City, we received this his bequest to the reading public. He was a man of the people, without the culture of schools, but mature with the practical experience that is derived from a long life in a variety of business relations, and an intelligence rich with much general observation of men and affairs. There was nothing Machiavelian about Mr. Cooper, and still less dilettantism, but an earnest, decided spirit of benefaction. He addresses the people for the purpose of imparting such advice as he believes will prove of value in the application. We are frank enough to acknowledge our belief that Mr. Cooper was right in his feeling that he had things to say that would serve a useful end should they be received with esteem by our public men, and wrought into the fabric of our civil policy. A man who had proved himself a success in large commercial ventures, and in philan-

thropic enterprises that have benefited thousands, is no commonplace citizen. The main topic of the volume is coin and paper currency, in the discussion of which he argues at great length in behalf of a paper currency for the use of the people, to be issued by the Government exclusively. He also discusses tariff questions, advocating measures of protection as essential to growth and prosperity at home. Mr. Cooper's mind seemed to lose little or none of its vigor and freshness at his advanced age, for at ninety-two he could grapple with important topics of public interest, and show himself a contestant of no mean power, with resources of memory that comparatively few young men possess.

SOME OF THE DISEASES OF THE RECTUM, and their Homeopathic and Surgical Treatment. By Mortimer Ayres, M.D. 8vo, cloth. Price \$1. Duncan Brothers, Publishers, Chicago.

This modest treatise comes from a practical man, and is a condensation of results that have been obtained from a large number of treatments. The prevalence of rectal disease is so great that no physician can afford to be without the best information upon it, and as the development of its special treatment is of comparatively recent date, the literature of the subject is fresh and enlightening. Dr. Ayres supplies the profession with suggestions on the treatment of Ulcers, Polypi, Abscess, Hemorrhoids, Fistula, and Constipation. We should like everybody to read what he says on the hygiene of the rectum or preventive means.

THE ENTAILED HAT; or, Patty Cannon's Times. A Romance. By George Alfred Townsend ("Gath"). pp. 565, 12mo, cloth. Price \$1.50. Harper & Brothers, New York.

Since "Uncle Tom's Cabin" there has not appeared a more thrilling story than this. It was charged that Mrs. Stowe was a stranger to the scenes she described, and that she had been deceived by exaggerated stories told by unreliable persons. Mr. Townsend, however, was a native of the Eastern Shore of Maryland, near the neighborhood where the startling drama was enacted of which he writes. For twenty years previous to 1830 a gang of desperadoes infested a section of country lying along the adjoining borders of the States of Delaware and Maryland, of which Patty Cannon was the queen. She had more than the strength of a common man, and the fascination of a highly magnetic and beautiful woman, with all the slyness and cruelty of the tiger. Her sister Betsey, and Ebenezer Johnson and Joe Johnson were among her prominent assistants. Their character was well known, but the whole people were terrorized, and their sway was practically complete. They could manage to defeat or elect candidates for office, and this fact and sundry services in that line tended to silence the voice of leading men. But murders, thefts of slaves, and the frequent kidnapping of freemen, even from the very capital of Delaware, as well as from the city of Philadelphia, finally

aroused the people, and some of the outlaws were killed, some escaped, and Patty Cannon herself was arrested, and committed suicide in the jail at Dover, Del., while awaiting trial for several murders.

In future editions we hope the author will tell of the descent of the "Entailed Hat," and the unrevealed reason for its being so tenaciously worn. The publishers of the PHRENOLOGICAL JOURNAL find in "Patty Cannon's Times," as revealed in this book, additional interest in the fact that for more than forty years the skulls of Patty and Betsey Cannon and Ebenezer Johnson have been preserved in the Phrenological Museum in New York. They were obtained by the original proprietors of the Museum while lecturing in Maryland and Delaware, near the scene of the crimes and tragical death of the notorious Patty.

RUTHERFORD. A Novel. By Edgar Fawcett, author of "An Ambitious Woman," "A Hopeless Case," etc. Paper. Price 25 cents. Funk & Wagnalls, New York.

Since Mr. Fawcett took up the novelist's pen he has made rapid advancement toward a high place. He deals with phases of society that require the utmost skill; but his insight into character, his ready sympathies, and his conscientious literary art have proved quite equal to the tasks he has undertaken. It is certain that many of the best critics are watching his course with high anticipations. In "Rutherford," his latest work, we think that the public will not be disappointed. It is a novel of New York society, and portrays character with delicate but effective touches. Nothing the author has ever done, perhaps, surpasses his characterization of Pansy and Marion, the two sisters who have fallen from affluence to poverty. Through them he shows a dramatic power that is full of promise. The book is refined and suggests high thoughts and an excellent culture.

PUBLICATIONS RECEIVED.

SCIENCE AND SINGING. By LENNOX BROWNE, F.R.C.S. Edgar S. Werner, publisher, Albany, New York. Paper, 40 cents. The author in this treatise shows the necessity for scientific knowledge, gives instances of the results of unscientific teaching, and discusses among other things the influence of eyes to aid the ear, advantage of laryngoscopic observation, mechanical aspect of breathing, chemical aspect of breathing, poisonous air of theatres, effect of poisonous air on the voice, supposed vocal supremacy of Italy, Italian as language of song, uselessness of artificial voice-mixtures, questions concerning the registers, early education, etc.

APPLETON'S RAILWAY AND STEAM NAVIGATION GUIDE for September, is as full in detail of information for the travelling public as usual. The tourist will find his questions answered about routes, hotels, etc.

THE SURGERY OF THE RECTUM. By Henry Smith, F.R.C.S., Professor of Surgery in King's College, London, etc. From the fourth English edition, with additions and illustrations. Price in paper 25 cents.

THE PUERPERAL STATE. By W. S. Playfair, M.D., F.R.C.P., Professor of Obstetrics in King's College, London. Containing ten chapters, setting forth the management to be pursued in the different phases of puerperal fever. Price 25 cents.

A PRACTICAL MANUAL OF THE TREATMENT OF DISEASES OF THE RECTUM. By Henry Smith, F.R.C.S., etc. From the fourth English edition, enlarged and illustrated. Price 25 cents.

The above three pamphlets are from the experience of specialists, and contain in a condensed form much valuable information. Messrs. Birmingham & Co., of New York, are the publishers.

OGILVIE'S POPULAR READING, No. 9, contains seven stories, and a collection of Readings. Price 30 cents. Messrs. J. S. Ogilvie & Co., New York.

THE NORTH AMERICAN REVIEW, for September, contains several strong names; for instance, Bishop Spalding, on Popular Government; D. A. Wells, on the Tariff, its evils; Dr. J. H. Rylance, on Inspiration and Infallibility; Prof. Winchell, on Our Remote Ancestry.

THE CONTINENT, weekly; conducted by Albin W. Tourgee, New York, continues its progressive career. Its pictures of life scenery at home and abroad, by pen and pencil, are always interesting, and its sketches hit off civil and social matters often admirably.

LE PROGRÈS MÉDICAL (Medical Progress), Journal de Médecine de Chirurgie et de Pharmacie. Weekly. The visits of this Parisian organ of Medical Science come regularly, and are acceptable, as the publication is a well-arranged and condensed exposition of what is done by the physician and surgeon. M. Bourneville is the editor.

WHAT'S THE MATTER? By Celia B. Whitehead. pp. 120. Price 25 cents. A new edition of a useful book which we have noticed before. Dealing as it does with the hygienic relations of woman's dress, and that in a clear and forceful style, it deserves a wide reading. The author is in dead earnest for the deliverance of her sex from the follies of fashion.

REPORT OF EZRA H. HEYWOOD'S DEFENCE before the United States Court in Boston, and other matters. Price 25 cents.

NUMBER ONE AND HOW TO TAKE CARE OF HIM. By Joseph J. Pope, M.R.C.S., L.S.A. Price 15 cents. No. 120 of the Funk & Wagnalls "Standard Library," and a little manual replete with good-humored advice on taking care of one's body, the substance of food and its relation to nutrition, dress, exercise, recreation, employments, habits of order, etc.

ALL THE LEADING DRUGGISTS SELL PEARS' SOAP

PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP PEARS' SOAP

PEARS' SOAP

THE FAMOUS ENGLISH COMPLEXION SOAP



If Cleanliness is next to Godliness, Soap must be considered as a Means of Grace and a Clergyman who recommends moral things should be willing to recommend Soap. I am told that my commendation of Pears' Soap has opened for it a large sale in the United States. I am willing to stand by every word in favor of it that I ever uttered. A man must be fastidious indeed who is not satisfied with it.

Henry Ward Beecher

HIS OPINION OF PEARS' SOAP

GOOD COMPLEXION

ESTABLISHED IN LONDON 100 YEARS.



A SPECIALTY FOR THE SKIN & COMPLEXION, As recommended by the greatest English authority on the Skin,

PROF. SIR ERASMUS WILSON, F. R. S. Pres. of the Royal Col. of Surgeons, England.

Nothing adds so much to personal appearance as a **Bright, Clear Complexion and a Soft Skin.** With these the plainest features become attractive. Without them the handsomest are but coldly impressive.

Many a complexion is marred by impure alkaline and Colored Toilet Soap.

PEARS' SOAP

Is specially prepared for the delicate skin of ladies and children and others sensitive to the weather, winter or summer. In England it is pre-eminently the complexion Soap, and is recommended by all the best authorities, as, on account of its emollient, non-irritant character, **Redness, Roughness and Chapping are prevented, and a clear and bright appearance and a soft, velvety condition imparted and maintained, and a good, healthful and attractive complexion ensured.**

Its agreeable and lasting perfume, beautiful appearance, and soothing properties commend it as the greatest luxury of the toilet. Its durability and consequent economy is remarkable.

15 INTERNATIONAL AWARDS.

ALL THE LEADING DRUGGISTS SELL PEARS' SOAP

— JUST PUBLISHED. —

THE MAN WONDERFUL

IN

The House Beautiful.

AN ALLEGORY.

Teaching the Principles of Physiology and Hygiene, and the effects of Stimulants and Narcotics.

FOR HOME READING.

Also adapted as a Reader for High Schools, and as a Text-book for Grammar, Intermediate, and District Schools.

BY CHILTON B. ALLEN, A.M., LL.B., M.D., AND MARY A. ALLEN, A.B., M.D.

Fully Illustrated, Extra Cloth, 12mo, Price \$1.50.

THE publishers have great pleasure in placing before the public a book which is almost as wonderful as the subject of which it treats. The motive of the book is to teach that the most beautiful, and, at the same time, the most wonderful thing in nature is man; and no one can read these chapters without feeling that the authors have accomplished their task.

The book is an allegory in which the body is the "House Beautiful," and its inhabitant the "Man Wonderful." The building of the house is shown from foundation to roof, and then we are taken through the different rooms, and their wonders and beauties displayed to us, and all this time we are being taught—almost without knowing it—Anatomy, Physiology, and Hygiene, with practical applications and suggestions.

We are then introduced to the inhabitant of the house, "THE MAN WONDERFUL," and learn of his growth, development, and habits. We also become acquainted with the guests whom he entertains, and find that some of them are doubtful acquaintances, some bad, and some decidedly wicked, while others are very good, company. Under this form we learn of food, drink, and the effects of narcotics and stimulants.

The illustrations are of the best, and these, together with the happy verbal illustrations, give the reader a clearer idea of the subjects treated than any other work dealing with the same themes.

To pick up the book and read a chapter at random is to excite an interest that can not be satisfied until every chapter has been read, and the critic will not then be content, for he will wish to re-read in order to admire the beauty and simplicity of the style, as well as the ingenuity with which the different subjects are handled and the skill with which the important points are made prominent.

The Table of Contents by Chapters has these striking subjects:

The "Foundations," which are the bones. The "Walls" are the muscles, while the skin and hair are called the "Siding and Shingles." The head is an "Observatory," in which are found a pair of "Telescopes," and radiating from it are the nerves compared to a "Telegraph" and "Phonograph." The communications are kept up with the "Kitchen," "Dining-Room," "Butler's Pantry," "Laundry," and "Engine." The house is heated by a "Furnace," which is also a "Sugar Manufactory." Nor is the house without mystery, for it contains a number of "Mysterious Chambers." It is protected by a wonderful "Burglar Alarm," and watched over by various "Guardians." A pair of charming "Windows" adorn the "Façade," and a "Whispering Gallery" offers a delightful labyrinth for our wanderings.

In fact, the book is more wonderful than a fairy tale, more intensely interesting than a romance, and more replete with valuable truths than any book of the present day.

The authors—husband and wife—are both regular physicians, and besides graduating in the best schools of America, spent three years under the best instructors in Vienna, Paris, and London.

But teachers will ask, Is it adapted to our schools? And we can best answer this question by saying that Prof. Foster, Superintendent of the Ithaca Schools, has read the manuscript and writes as follows:

OFFICE OF THE BOARD OF EDUCATION, Ithaca, N. Y., July 2, 1884.

TO WHOM IT MAY CONCERN: The subscriber has read with much pleasure nearly all the copy for a new work on physiology and hygiene, entitled "The Man Wonderful in the House Beautiful," by the Drs. Allen, representing the human body to be the house beautiful, with its doors, windows, rooms, furniture, servants, etc., etc., and the mind to be the man wonderful in possession. They have admirably succeeded in weaving into the several chapters the important facts of physiology and hygiene in such a skillful manner as to make very pleasant reading, and to arouse and hold the interest of the reader, while at the same time, the facts of the subject are rendered very clear and easily understood. The chapters on alcohol and narcotics are especially to be commended, as they make the work excellently adapted to meet the requirements of the recent law, requiring instruction in physiology and hygiene, with reference to the effects of alcohol and narcotics. In my opinion, this book, if suitably illustrated and printed, will make a much better work on the subjects treated of, for use in the grammar grades of our public schools, as well as for general reading, than any now before the public.

L. C. FOSTER, Superintendent of Schools.

The authors have been teachers and know what will aid both teacher and scholar, and they have kept in mind the fact that many teachers will be called upon to teach these subjects who will feel the need of aids, and they will find them in the questions which are so arranged with exponents in the text that the lessons are easily comprehended.

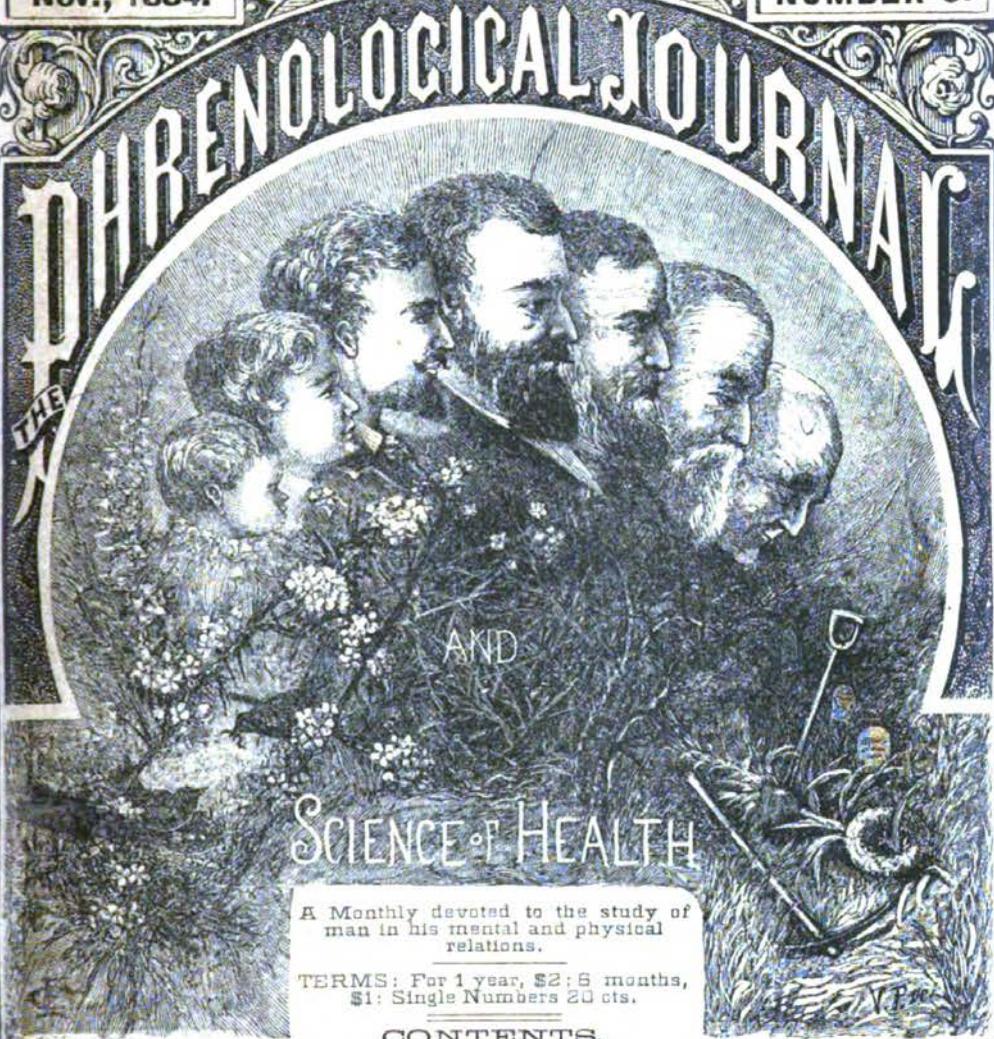
The book will be sent by mail, post-paid, on receipt of price, \$1.50. Agents wanted, to whom special terms will be given. Address

FOWLER & WELLS CO., Publishers, 753 Broadway, N. Y.

Old Series, Vol. 79
Nov., 1884.

KNOW THYSELF

New Series, Vol. 30
NUMBER 5.



A Monthly devoted to the study of man in his mental and physical relations.

TERMS: For 1 year, \$2; 6 months, \$1; Single Numbers 20 cts.

CONTENTS.

I. The Statue of Liberty and its AUTHOR. Illustrated	249	XV. Professional Nurses	296
II. An Eminent Surgeon on Brain ORGANIZATION	254	Notes in Science and Agriculture.—Mental Dialogue; The Laboratory that Jack Built; The Deluge and Noah's Ark; Ancestors of the American Indians; A Curious Ocean Phenomenon; Rare Animals in the New York Central Park; Birds' Taste for Color and Music; A New Thing in Ovens; What the Greeley Expedition Effected; Contrasts of "Progress"	298
III. Organic Cerebration, VI.; Secretiveness, Acquisitiveness, Alimentiveness	260	Editorial Items.—Antecedents of Phrenology, No. 3; Apropos of the Season; Eccentric People; Diet and Cholera	303
IV. Will the Puritan Race Perish?	262	Poetry.—Three Maids; Love's Compensation; Mr. I Can't	
V. Milton's "Samson Agonistes."—Illustrated	265	Answers to Correspondents.—Photo-engraving; Selfish and Hard-hearted; Frontal-Sinus Again; Study of the Law; Horizontal Wrinkles Between the Eyebrows; Always in a Hurry. WHAT THEY SAY.—Imitating Others	307
VI. The Feeble-Minded at School	271		
VII. The Presidents of the British AND AMERICAN ASSOCIATIONS OF SCIENCE. Portraits	275		
VIII. A Profession or a Trade?	277		
IX. Reaping the Whirlwind. A story.	279		
X. A Rare Old House	287		
XI. Study to be Courteous	288		
XII. Power of Temperance Education	290		
XIII. Notes on Rheumatism	293		
XIV. The Japanese as Vegetable EATERS	295		

ENTERED AT THE POST-OFFICE AT NEW YORK AS SECOND-CLASS MATTER.

FOWLER & WELLS CO., Publishers, 753 Broadway, New York.
L. N. FOWLER, Imperial Buildings, London, England.

Send One New Name with Your Own.

PHRENOLOGICAL JOURNAL.

PREMIUMS FOR 1885.

A NEW PHRENOLOGICAL CHART.

This is a handsome Symbolical Head, made from new and special drawings designed for the purpose. The pictorial illustrations show the location of each of the phrenological organs, and their natural language. It will help to locate readily the faculties, and at the same time give a correct idea of their functions. The Head is about twelve inches wide, handsomely lithographed in colors in the highest style of the art, and printed upon heavy plate paper, about 19 x 24 inches, properly mounted, with rings for hanging on the wall, or it can be handsomely framed and placed under glass when desired.

It will be presented to yearly subscribers to the PHRENOLOGICAL JOURNAL (\$2.00), whether new or old. When sent by mail, we must receive 10 cents extra, to cover the cost of mailing the premium and the postage on the JOURNAL, which is sent prepaid, or the chart alone will be sent by mail, post-paid, on receipt of price, \$1.00. (Will be ready for delivery November 10th.)

THE PHRENOLOGICAL BUST.

This is one of the best possible aids to a proper understanding of the exact location of the Phrenological organs. It is so lettered as to show them separately on one side and in different groups of organs—moral, intellectual, executive, and social—on the other. It is handsomely made in white plaster, and very ornamental. An ILLUSTRATED KEY accompanies each bust, fully explanatory and giving such directions as to enable the reader to understand its use, including the names and the functions of each of the faculties. When sent, 15 cents extra must be received for packing and boxing. The large size (price, \$1.00) will be forwarded by express at the expense of the subscriber, or No. 2, small size (price, 50 cents), will be sent by mail, post-paid. We offer a choice of either of the above premiums to all subscribers for 1885.

A NEW OFFER.

All Book premium offers with subscriptions to the JOURNAL will be withdrawn after November 1st; but we make the following very liberal proposition to old subscribers who will send new names. For each new yearly subscription to the PHRENOLOGICAL JOURNAL sent with \$2.00, by a person now a subscriber, we will give a copy of one of the following books: "The Diseases of Modern Life," a work on the avoidable causes of disease; by Dr. B. W. Richardson. Price, \$1.50. "Expression: Its Anatomy and Philosophy." By Sir Charles Bell. Price, \$1.50. The "Reminiscences of Spurzheim and George Combe." By Hon. Nahum Capen. Price, \$1.50. "Constitution of Man." By George Combe. Price, \$1.50. "Wedlock; or, The Right Relation of the Sexes." By Samuel R. Wells. Price, \$1.50. "A Bachelor's Talks About Married Life." By William Aikman, D.D. Price, \$1.50. "How to Read Character." Price, \$1.25.

These offers are made only to old subscribers who send new ones, and no other books can be sent without extra payment; but any \$1.50 book of our own publication will be sent by payment of 50 cents extra. To the new subscriber will be given either the Chart or Bust Premium, as above.

Send amount in P. O. Orders, P. N., Drafts on New York, or in Registered Letters. Postage-stamps will be received. AGENTS WANTED. Send 10 cents for specimen Number, Premium List, Posters, etc. Address

FOWLER & WELLS CO., Publishers, 753 Broadway, N. Y.

THE
PHRENOLOGICAL JOURNAL

AND

VOL. 79. LIFE ILLUSTRATED. 1884.

NUMBER 5.]

November, 1884.

[WHOLE No. 551.



THE STATUE OF LIBERTY AND ITS AUTHOR.

THE traveller who approaches New York City by steamer, after passing Staten Island, will have his attention directed to a rising mass of masonry on the south shore of a small island that he must pass by before his vessel makes her landing. This mass, he will be told, is the base of the pedestal on which is to stand the great statue of Liberty, recently presented to the United States by the French

people in commemoration of the centennial anniversary of our independence.

The site of the statue selected, in accordance with a joint resolution of Congress, is Bedloe's Island, the Government agreeing to provide for the care of the statue, and to maintain it as a beacon or light-house after it had been set up. A powerful electrical apparatus will supply the torch, in the upraised hand of the statue, with the illumination considered appropriate.

The designer of the statue, Mr. Auguste Bartholdi, is an Alsatian by birth, but comes from Italian ancestors, who emigrated from the North of Italy about two hundred years ago, and settled in Alsatia, making Colmar their permanent home. Among the leading representatives of the family, as the generations passed, were preachers and officers under Government. The subject of this sketch early manifested a leaning toward art, and availed himself of such opportunities as came to him for its study. He is a modest, somewhat reserved man, but possessed of a steadfast will and persevering energy. His head is large, well elevated at the crown, and broad from the temples backward. The intellectual region is full from the eyebrows upward, showing the man of reflection and ideas,—one more disposed to think quietly than to communicate on slight occasions. There is critical nicety in his discriminations, while his ambitions in the way of achievement are of a large or wholesale character. He grasps large conceptions, and would devote but little time on small subjects. A great man, a great event challenges his enthusiasm, and draws speedily upon the resources of his ideality for its adequate symbolism. He is therefore at home in the contemplation of important subjects, while the majority of his fellow-sculptors may be more at their ease in the endeavor to make moist clay represent the average or commonplace sentiments of life.

It could not be supposed that the French Government would select an ordinary man to work out the idea of such a statue as had been proposed as a gift to the

American Republic. Hence in appointing Mr. Bartholdi, an artist was chosen who had already distinguished himself in sculpture, whose reputation was of a national character. There is the statue of Lafayette, for instance, that was given to New York as a testimonial of gratitude on the part of the French people for sympathy and service done them by the Americans during the war with Germany. This statue, as many of our readers know, is of bronze, and stands in a conspicuous part of Union Square, and represents the noble French patriot in the earliest days of his fame, scarcely more than a boy in years, the authorities for his face and figure at that time being found in the records of the Government, to which Bartholdi gained access in Paris. In this way Lafayette must have looked when he left France to offer himself and his fortune to General Washington. To express his enthusiasm and generosity, Bartholdi has represented him in the well-known pose on the prow of a galley, symbolizing his adventurous trip across the ocean. The artist was aware that an equestrian statue of Washington, by Brown, stood on the open space at Fourth Avenue, not far from the site proposed, and so moulded his statue in the act of stepping toward Washington, with his left hand extended as if proffering his services, while his right hand presses a sword to his breast with a gesture of devotion. We can from this imagine the moment when Washington told him that the American troops he would lead were badly drilled and worse equipped, and the Marquis replied: "I have come hither not to criticise, but to learn."

How differently he looked in later years may be inferred from the bust in the Lenox Gallery at the library in Central Park that was made about fifty years ago when he visited the United States. Then an old man, the lower part of his face had grown heavy and wrinkled; nevertheless there remained traces of the noble youth who had devoted his energies to the liberties of the American nation.

Another important work that Bar-

tholdi has treated with more force and possibly more earnestness, because the character is of a more powerful type, is that of Vercingetorix, the Gallic leader, who roused his countrymen to throw off the yoke of Rome—the man who gave himself up to Cæsar when he had lost all, in the hope that the conqueror would spare his fellow-Gauls after satisfying his revenge on himself. This statue is now in the galleries of the French Government. The fierce warrior is represented on horseback, madly charging the enemy. Half turning in his saddle, he is stimulating his men to follow. The sword-arm is straight above his head, brandishing the weapon with an electric gesture of daring and command.

At Avallon there is a bronze statue of Vauban, who was a soldier as well as a great military engineer. He is arrayed in an ample coat, with soldier's boots and a sword. Near him are emblems of fortifications and weapons for sieges. His head droops pensively, as if deep in thought. This piece of heroic size stands in the park at Avallon.

The monument to Martin Schön at Colmar gives an example of Bartholdi's ability in the way of elaboration. Martin Schön was an illustrious painter and engraver of the fifteenth century, and the highly-finished pedestal with figures and bas-reliefs of brown stone represent the four quarters of the globe. It should be said that Albrecht Dürer was the apprentice of this master.

Another example of his works is his "Grief"—a woman bowed down and utterly overcome, covered with a mantle, through the folds of which the outlines of her figure show, and forcibly depict her despair. This was exhibited at our Centennial in 1876. The fountain which was also there was Bartholdi's work, and was bought by Congress for the grounds of the Capitol at Washington.

The statue of Liberty is his masterpiece, so he calls it, and the gigantic hand that was exhibited in the Centennial Exposition, and afterward for several years at Madison Square, goes far to con-

firm this artist's estimate of his own work. Being but a small part of the whole, it is nevertheless generally regarded as a splendid piece of architecture.

M. Bartholdi came to the United States to study the relations of site to his work, and found that he had more difficulties to overcome than he thought of. He had planned a statue of gigantic size, appro-



STATUE OF LAFAYETTE ON UNION SQUARE.

priate to the greatness of the American nation, yet he found that the scale on which the bay and surroundings of New York were constituted would compel the exercise of his best powers to mould a pharos that would not prove a failure and a disgrace. Yet, in the matter of size, our sculptor was not dismayed; he had studied proportions for years—had travelled in Egypt, where he saw those colossal remains of antiquity, and gained many useful hints.

One work of his, "The Defence of Belfort," enabled him to put into sculpture his study of the vast. Belfort is a little town occupying a strategical point of great importance high up in the Vosges mountains, and its heroic defence against the Germans in the late war gave rise to excessive admiration in France. This defence was commemorated by a statue of a lion that stands against the face of the plateau, on which the citadel, originally fortified by Vauban, stands. The figure, of great size, was fashioned partly by cutting in the reddish rock and partly



THE TORCH OF "LIBERTY."

by building up with stone. The lion half rises from a lying position, as if startled by the fall of an arrow at its feet, and seems to be uttering a roar. It was necessary here that the lion should be so wrought out against the background that no observer could mistake its actions at whatever distance seen, and the details must consist of great masses whose purport the distant eye could gather. The mane, for instance, could not be treated minutely hair by hair, but in great tresses, which, at a distance, should give the effect of hair. Again, there must be no deep depressions in the figure, the shad-

ows of which would interfere with the distant effect.

Of the statue of Liberty we give an illustration which shows its proposed site in relation to the surrounding country. One can see that Bedloe's Island is the central point in the complex of the rivers, islands, and mainland, forming what is the city of New York, Hoboken, Jersey City, Staten Island, and Brooklyn. The effect of the statue may be imagined from the following: Allowing twenty feet for the height of the island above water, the pedestal is to be one hundred and ten feet high, and the statue itself to the flame of the torch one hundred and forty-five. This will make the torch at least two hundred and seventy-five feet above the level of the bay, and will be double the height of the column in the Place Vendome at Paris, and more than double that of the Colossus of Rhodes, so much celebrated in antiquity. The great magnitude of the figure rendered it necessary that the metal shell or skin should be cast in pieces of manageable size, and the statue built up like an armored frigate.

M. Bartholdi has also used the drapery to give a tower-like and solid look to the lofty woman, without forgetting the necessity for variety in the upward lines, and has followed the laws of stability to be seen in trunks of trees, which are broad at the ground where the roots are indicated, yet by no means of one monotonous breadth from the root to the branches. The Liberty will stand, it is claimed, the strongest hurricanes, notwithstanding the grim predictions of some "knowing ones" that a moderate blow will after a while be sufficient to topple it over.

The expenses of the statue itself were defrayed by popular subscriptions in France, the funds being completed in 1880, when the labor of casting the bronze was commenced. Last fourth of July the work was complete, and the statue formally presented to the United States.

A word or two with regard to the site of the statue and the construction of the pedestal may be interesting to the reader. Bedloe's Island—a little tract of land but

twelve acres in extent—lies in the bay, something over a mile south of Jersey City, in full view of the lower parts of New York and Brooklyn. It is called Bedloe's Island, because Isaac Bedloe, one of the settlers in New Amsterdam, bought it of the colonial government somewhere about 1660.

A writer in *St. Nicholas* says: "It was decided that the lofty pedestal for the statue should be built in the square within the old fort on this Island. The parade-ground, however, appeared to be level sand. Clearly, it would not do to rest so

bottom. It will be like one solid block of stone-work, sunk deep in the ground, and rising to the level of the broad walk on top of the walls of the fort. On this the pedestal is to be built.

"There will be stairways within the pedestal and balconies near the top, commanding a fine view of the beautiful bay and the three cities. The following measurements of parts of the statue will give an idea of its vast proportions: The figure itself, from the top of the head to the foot on which it stands posed as if about to step forward, is one hundred



STATUE OF LIBERTY ENLIGHTENING THE WORLD.

great a weight on sand, and it would be necessary, therefore, to make excavations until a firm foundation was secured far below. This seemed an easy task, but it proved to be an exceedingly difficult one. Under the parade-ground were the old water-tanks, the store-rooms, and bomb-proof vaults, and these were of solid brick and stone, very heavily built.

"A pit or excavation ninety feet square was made, and was carried deep enough to go below the fort to the solid ground beneath, solidly filled up with concrete—a mixture of cement, broken stones, and water. The mass of concrete is fifty-three feet deep and ninety feet square at the

and ten and a half feet high; the fore-finger is eight feet long and four feet in circumference at the second joint; the head is fourteen feet high, and forty persons can stand within it. There will be a stairway within the statue leading to the head, and another in the extended arm, by which ascent may be made into the torch, which will hold fifteen persons. A great light will be placed in the torch, and the pointed diadem encircling the head will be studded with electric lights. The total weight of the statue, including both the iron skeleton and the copper covering, is estimated at one hundred thousand pounds."

AN EMINENT SURGEON ON BRAIN ORGANIZATION.

[IN a late number of the *Medico-Legal Journal* an elaborate article is published by Dr. J. M. Carnochan, of New York, under the title of "Cerebral Localization in relation to Insanity." As Dr. Carnochan is a representative of the best surgical talent in this country, his views on the topic he has chosen to discuss are important to anthropologists in general and to phrenologists in particular. The great length of the paper precludes its reproduction entire, so that we must ask the reader to be contented with the extracts that follow. —ED. P. J.]

GALL commenced his system of localizing the organs and functions of the brain by apportioning the brain into regions, limiting them, in general, by the dividing furrows or *fissures* of the several lobes. To the convolutions of the frontal lobe the intellectual and perceptive group of centres were allotted. In the posterior lobe and lower range of the middle lobe, the affective organs and those of the animal propensities were found; while the moral and æsthetic group of centres were located in the upper and coronal parts of the brain. The cerebellum is supposed to have the function of presiding over procreative activity. As concerns these propositions, with the exception of the functions attributed to the cerebellum, recent experiments in vivisection have, in a great measure, verified their accuracy. No one conversant with the modern discoveries in physiology can be in doubt, even in the present condition of medical science, concerning the possibility of localizing many organs of the brain through the activity and instrumentality of which certain special functions are made manifest.

The discoveries of Sir Charles Bell, 1811, corroborated by Magendie and Longuet in 1840, have placed the spinal centres of general sensibility and of locomotion in the posterior and anterior columns of the medulla spinalis, and, in tracing the nervous strands of white medullary matter and the gray cineritious substance of this organ upwards into the brain, at different sections, the motor and reflex

centres of the functions of respiration, of digestion, of the tongue and the pharynx are definitely located at the medulla oblongata. Also, in connection with the extended continuity and prolongation of these same strands and ganglionic deposits of gray matter and piercing the brain at the junction of the medulla oblongata with the pons varolii, the nerve of *audition* and the *motor nerve of the face* are seen, the first taking origin at the gray matter of the fourth ventricle, and the second connected at its root with the motor part of the medulla oblongata. Anterior to these, and still in connection with the advancing strands, the nerve of the external rectus, the *sixth pair*, and the nerve of the other motor muscles of the eye-ball and of the orbit, the *third pair*, are met with; the *sixth pair*, connected with the medulla oblongata, emanating from the substance of the brain in front of the pons varolii; and the trunk of the *third pair* from the side of the crus cerebri, from the deep part of which it takes its origin. The root of the *fourth pair* of nerves, called *pathetici*, from their action in turning the globe of the eye upwards in the expression of prayer, is placed near the surface of the fourth ventricle, at the calamus scriptorius. The *sensory* portion of the *fifth pair* of nerves, the nerve of general sensibility of the face and of the appendages of the organs of special sense, has its real origin localized at the medulla oblongata and in the interior of the pons varolii, and is seen piercing the *pons*, anteriorly upon its external side. The *motor* portion of the fifth pair takes its origin in connection with the pyramidal or motor portion of the medulla oblongata.

The nervous centres of the organs of *special sense*; of *smell*, of *sight*, and of *hearing*, can also be localized with the same degree of precision and certainty. That of hearing, the *portio mollis* of the seventh pair, has already been located. The *visual centre* is known to be placed in connection with the tubercula quad

rigemina, and the corpora geniculata of the optic thalamus; and that of the *olfactive centres* at the posterior part of the anterior lobe, the lower part of the middle lobe, and at other proximal points of origin.

The great basal ganglia—the *tubercula quadrigemina*, the *optic thalami*, and the *corpora striata*, large aggregations of *cineritious* nervous substance, intermingled with white fibres seated inferiorly and in the interior of the brain, are known to be auxiliary to the functions of motion and of general and special sensation, and to serve as the means of elaborating the nervous influence which supplies the organs that are in connection with them.

The evidences thus given of the identification of certain functional manifestations, such as motion and sensation, with defined or limited parts of the medulla spinalis and of the cerebral strands continued from it, and, also, of a similar correlation and identification between the functions of the special senses and the nervous centres on which they are dependent, serve as examples of the reality and utility of the principle of localization, and are as much mental as those functions attributed to the more introspective or psychological organs. . . .

The theory of localizing motor and sensory centres in the cortex of the hemispheres, even if regarded as established, must be looked upon as an ancillary arrangement. The most important functions belonging to the cerebral hemispheres, as a whole, are directly connected with the exercise of the various psychical or mental manifestations. This correlation of the mutual dependence of function upon organization rests upon such established proofs as to be no longer a subject of argument among physiologists. The results following the partial or total removal of the hemispheres by vivisection made upon the lower animals; of injuries or diseases of the brain; and of imperfect development, as in cases of idiocy, can only be alluded to, at present, as corroborative of the physiological fact that the organs of the mind are located

in the encephalon, and are mainly functionalized and manifested through the instrumentality of the hemispherical ganglia of the cortical substance of the cerebral convolutions. . . .

According to Betz, of Kiew, the *posterolateral regions* of the gray cortex of the convolutions are destined for functions of sensibility. These regions would comprise the convolutions in which the ribbon of Vicq d'Azyr is situated, and particularly the temporal lobe and the sphenoidal lobe including the *triangular lobule* and the *quadrilateral lobule* placed upon the internal face of the hemisphere. Some authors locate the *sensorium commune*, the common centre of sensation, in these regions, and, according to Charcot, this hypothesis is founded upon anatomical and pathological considerations. Admitting the fact urged by many experimenters that an important influence resides in the gray cortex of the convolutions in certain parts of the brain to which certain motor and sensory functions are attributed, there is sufficient proof that the encephalon is the seat of the various phenomena of intelligence, and that the gray cortex of the cerebral convolutions, regarded as a whole, is composed of a plurality of nervous centres through the functioning powers of which the mental faculties are performed and made manifest. Moreover, the material conditions of the intelligence, of the sentiments and of the instincts, have to be brought into correlation and associated with each other, and this is brought about by the various intercommunicating medullary white fibres of which the remaining substance of the convolutions is made up.

The cortex of the convolutions, in fact, overlaps and encloses four species or kinds of fibres which terminate, most probably, among the cells of the gray substances, and, from the part they perform, are denominated *commissural fibres*; *arciform* or *fibres of association*; *peduncular* and *radiating fibres*. The phenomena of the special senses and of general sensibility and motion are entirely mental

in character, and are the productions of particular cineritious and medullary centres. It is only carrying the analogy further, to attribute the intellectual, affective and other faculties to the functional influence evolved from the ganglionic centres of the convolutions with which they are correlated. Wherever placed in the brain, the gray matter and white medullary fibres are in direct or indirect communication, the one supplying the psychic or ideal functioning influence, while the others act as the inter-nuncial heralds and messengers.

As heretofore mentioned, Locke compared the original vacant condition of the mind to a white sheet of paper, (the *tabula rasa*), devoid of characters, but possessing the susceptibility of receiving and retaining perceptions, from impressions derived through the external senses, which perceptions he called *sensations*. This class of perceptions, according to the theory of Gall, are also produced through the external senses and are evolved by the agency of peculiar *stimuli* acting upon the dormant susceptibilities of the cerebral convolutions, and arousing their special functions into activity. The other class of mental action or ideas, following *sensation*, called by Locke *reflection*, and which he supposed to originate, through the action of the mind itself, according to the materialistic doctrine, would be considered as nothing more than the active ideation of the cineritious cells of the same or of another set of convolutions.

The phenomena of the mind are apparently so infinite that it might seem a hopeless effort to attempt to reduce, under a few heads, the innumerable sensations and feelings which diversify almost every moment of existence. The philosophers of various sects, however, from remote ages, have assumed the task of rendering to psychological science the same kind of generalization which, in physical research, has proved of such utility, by adopting systems of mental classification.

One leading classification which was

sanctioned and adopted by metaphysicians for many ages, is the division of mental phenomena into those which belong to the *understanding*, and those which belong to the *will*.

Another division of the phenomena of the mind, somewhat resembling the ancient division of philosophy into the *contemplative* and the *active*, is, into those which belong to the *intellectual* powers and those which belong to the *active* powers. Another classification of mental phenomena, more allied to the views entertained by the metaphysicians of the different systems of philosophy of the present day, is the arrangement of all the mental phenomena into two definite classes, according as the causes or immediate antecedents of our feelings are themselves material or mental. The former of this class—that of the *external* affections of the mind—is so simple as to require but little subdivision. The other class, however, that of the *internal affections*, or states of mind, comprehend so large a proportion of mental phenomena, and are of such a various character, as to require a number of subdivisions. . . .

In contrast with the classifications of the mental phenomena just mentioned, formed by the mind itself reasoning upon the mind, is the classification of the functions of the mind constructed upon a basis purely organic or material. It rests upon the doctrine that there are two entities only in nature—matter and mind; the one dependent upon the other, both indestructible, but susceptible of change in their relations. The brain is viewed as the organ of the mind, subdivided into a plurality of organs, which, to simplify description, are arranged in separate regions and localized according to the character and nature of their special functions. By this doctrine, no doubt is allowed to exist in regard to the functions of the brain, as a whole, and, although diversity of opinion may arise as to the precise assignment of place among the co-operating parts, it is asserted that in the encephalic lobes are localized the *material conditions* of intelligence, the sen-

timents, and the instincts. The classification, thus founded, arranges all the mental phenomena into the *intellectual* faculties, the *moral* faculties, and the *affective* faculties, including the *animal propensities*.

In order to render more intelligible the dogmas of the *organic* classification, a new nomenclature for certain expressions, such as faculty, power, activity, memory, attention, perception, and conception, has been adopted. To the process of the mind, as manifested through the action of the organs, the term *faculty* is applied. Power, in whatever degree possessed, is capability of feeling, perceiving, or thinking. Activity is simply readiness and quickness. Memory is not regarded as a general *faculty* of the mind, as is customary with the metaphysicians, but is considered an attribute or a mode of action of the faculties. Perception is a susceptibility of an organ put into activity, and not a distinct faculty of mind, so of *conception*, it is but a mode of action of the faculties and not a *faculty*; it is the susceptibility of the faculties started into activity by internal causes. For example, in regard to memory, the painter may have a memory for colors which the sculptor does not possess, the linguist may have a memory for language not understood by the mathematician, and so on with other supposed metaphysical faculties which are not regarded as such, but looked upon as merely susceptibilities of organs put into a state of activity by external or internal causes.

THE LOBES OF THE BRAIN.

On the external aspect of the Hemispheres, the three principal fissures are seen, the fissure of Rolando, the fissure of Sylvius, and the external perpendicular fissure. The four lobes of the hemispheres are divided by natural fissures and by artificial lines; these lobes contain the convolutions which are limited by numerous anfractuositities coursing in a serpentine manner in various directions, and are much more regular and constant than might be expected from a cursory

examination. The same general disposition of furrows and convolutions is found to be present upon the base of the brain and along the internal surface of the hemispheres. The cerebral lobes are named according to their situation, as follows: the Frontal lobe, the Parietal lobe, the Temporo-sphenoidal lobe and the Occipital lobe.

The Frontal lobe is much the largest of the four, and presents, on its external surface, an amount of cortical or gray substance nearly as extensive as that of the other three lobes united. It is divided from the parietal lobe by the fissure of Rolando, and contains within its limits four principal convolutions—the frontal ascending, and the first, second, and third frontal convolutions. The para-central convolution is partly placed upon the inner aspect of the lobe.

The Parietal lobe is limited in front by the fissure of Rolando, posteriorly, although imperfectly, by the external perpendicular fissure; inferiorly, by the posterior prolongation of the fissure of Sylvius. Externally, on this lobe, a notable fissure is met with, the inter-parietal fissure; and three convolutions, the ascending parietal convolution, the superior parietal convolution, and the inferior parietal convolution. Upon the internal hemispherical aspect, the quadrilateral lobule, the precuneus, and a part of the para-central lobule are placed.

The Temporo-sphenoidal lobe is bounded superiorly by the posterior prolongation of the fissure of Sylvius, anteriorly by the anterior part of the fissure of Sylvius; posteriorly, by an imaginary perpendicular line dropped from the posterior part of the inter-parietal fissure, ending at the basal surface of the brain; inferiorly, by the surface at the base of the brain. This lobe contains a marked fissure called the parallel fissure, and the temporal convolutions designated as the first, second, and third.

The Occipital lobe is bounded superiorly, by the external perpendicular fissure; anteriorly, by the imaginary line mentioned as forming the posterior boundary

of the temporal lobe; posteriorly, by the cerebral cortex, and inferiorly by the lower part of the hemisphere. This lobe is small, irregular, and is formed by three convolutions, the middle superior occipital convolution, the middle occipital convolution, and the inferior occipital convolution. The internal hemispherical aspect presents the cuniform lobule and the fissure of the hippocampus. This, in brief, is a summary of the lobes, convolutions, fissures and lobules of the cerebral hemispheres. In each of the regions thus designated, certain organs are localized,

heart, lungs, stomach, liver, etc., and, anastomosing freely with the nervous branches springing from the spinal marrow and the brain, influences, in health and in disease, the functions of the brain. Morbid changes that occur in the blood and the *Reflex Action* of some portions of the nervous system must, also, be recognized.

The improved anatomy of the brain and the possibility of assigning to particular parts of the cerebro-spinal system certain functions with invariable exactness have recently directed the attention

of physiologists more closely to the study of the cerebral cortex. The results of the experiments of Fritsch, Hitzig, and Ferrier are prominent in reference to the localization of certain motor centres among the substance of the gray matter of the convolutions. These experiments seem to controvert the principle so long maintained that the gray ganglionic substance of the brain is not excitable by the electric current, or any other stimulus. Although the doctrine of placing motor centres in the convolutions is not universally accepted, it seems as likely for motor and sensory

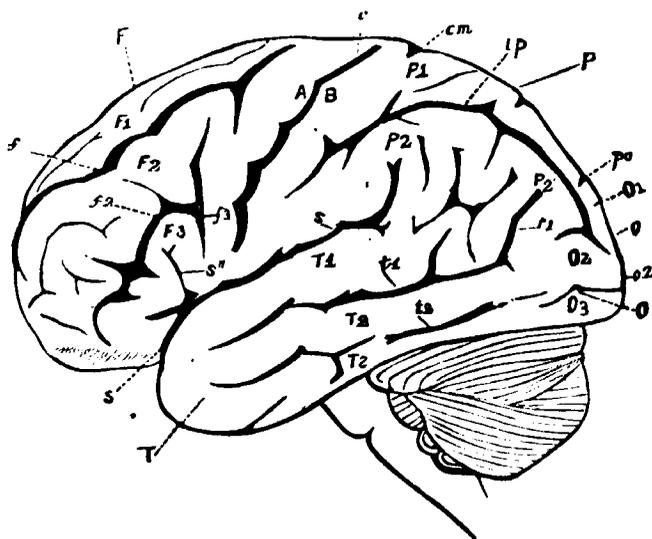


DIAGRAM OF BRAIN—LATERAL VIEW.

F, Frontal lobe; P, Parietal lobe; O, Occipital lobe; T, Temporal lobe; S, Fissure of Sylvius; A, and B, anterior and posterior central convolutions; *po*, perpendicular fissure; *cm*, situation of fissure of Rolando; *c*, central sulcus; *ip*, interparietal sulcus; *f3*, præ-central fissure; *O*, transverse occipital fissure or sulcus.

and when subjected to certain states of activity, the various mental phenomena of which the mind is susceptible are evolved.

In addition to this analysis of the action of the mind, it is not to be overlooked that there exists an auxiliary nervous apparatus known as the *Organic* or *Sympathetic System* of nerves, which communicate generally with the other part of the nervous system known as the cerebro-spinal axis. The Sympathetic system of nerves supplies the organs of the great splanchnic cavities, such as the

sensory influence to be located in the substance of the gray matter of the cortex as among the gray matter of the *corpus striatum*, a fact which is not doubted at the present time. It may be, that extremely delicate medullary fibres from some points of the *corona radians* may be prolonged into the substance of the cortex. Be this it may, there is undeniable evidence that the encephalon presides over and functionates the phenomena of intellectual and affective ideation. The accumulation of facts sufficiently proves this theory. In man, the

moral and most noble qualities, the ability to compare impressions, to express remembrance, become enfeebled or entirely disappear when grave lesions of the encephalon occur. The simple compression of this organ produces a state of torpor or of coma which ceases with the removal of the compression; the development of intelligence and of the moral aptitudes and perceptions follow, step by step, the evolution of infancy and the perfecting of the encephalic mass: a malformation of this mass is the invariable antecedent cause of imbecility or idiocy.

It is not necessary, at present, to claim for the doctrine of localization the precise limitation of the cerebral organs. What is claimed for the principle is, that the brain, as a whole, is the organ of the phenomena of mind, that it is composed of an aggregation of organs, and that the organs are the functioning sources of the individual mental functions. It remains for the future to develop the system, as has been done in other organs, by physiological and pathological research, as, for example, the localization of the organ and function of articulate language in the convolution of Broca. From observation and from comparative and pathological anatomy, certain mental faculties, under different terms, have been allotted to certain regions of the encephalon. To the frontal lobes have been assigned the organs of the intellectual faculties; to the posterior or occipital region, the affective or mental organs; to the *temporo-sphenoidal* regions, the animal propensities, while the moral sentiments are stated to have their organs developed on the coronal region of the brain. These assignments of place, whether altogether correct or otherwise, will serve as a basis for the further confirmation of the doctrine of cerebral localization.

As regards the proposed definition of Insanity, it is necessary to admit the doctrine as established that the brain is the organ of the mind; that it is a complex machine composed of many parts through

the instrumentality or functioning influence, of which all mental phenomena are manifested. With this view of the functions of the brain and of the localization of the organs, it must also be understood, that though all the organs of the brain may be diseased at once, yet that it is quite possible for some organs to be in a diseased or abnormal condition, while others, at the same time, are perfectly healthy. The influence of the Organic system of nerves distributed to the organs of the great splanchnic cavities, and the sympathies exercised through them upon the Encephalon, have to be considered, in studying the direct and indirect etiological sources of Insanity.

As Ideation or the operations of the brain are accomplished at the expense of changes—of partial or total disintegration taking place in the cells of the gray matter—it can be understood that particular organs may suffer if their functions are overtaxed beyond the physiological limit of waste and repair. If this pre-established harmony of relative metamorphosis, continually progressing in health, become temporarily disturbed, modifications of cerebral change must occur, accompanied by signs of mental exhaustion or disturbance; if prolonged for a length of time, mental manifestations will appear, representing different forms of insanity, according to the degree or intensity of the progressive change and the character and number of the implicated organs.

THE THREE MAIDS.

THREE maids went forth the lovely world to see;
Three maids, their names Faith, Hope, and Charity;
Each with her separate mission to unfold,
Apart, yet one, a happy band behold.

Three maids went wand'ring o'er the weary earth,
Seeking to give mankind a nobler worth,
Naught would they take; to give was their intent,
Riches beyond the world in their extent.

Three maids returned; footsore, and faint, and sad,
Heavy at heart where erst they had been glad.
For all their gifts in this great world of sin,
Few would accept, and none would take them in.

N. T. B.

ORGANIC CEREBRATION.—No. 6.

(Continued.)

SECRETIVENESS.

WHILE on the subject of Combative-ness and Destructiveness, we may remark that Secretiveness often works with Combative-ness and Destructiveness in the play, and in the fighting, of animals largely endowed with these organs, located in the middle lobe of the brain. Some dogs lack Secretiveness, and they know of no way but to go straight at their fighting and without tact or policy. There are some small dogs that are largely endowed with Secretiveness, and which gives them the policy that enables them to fight a larger foe and win a victory by tact. We have seen a dog that, being overtaken by a larger one, would fall on his back by way of submission, and if the dog dared to approach his throat, he would catch the dog's foot and bite it so sharply, that the big dog would quit the fighting from sheer pain, and go off on three legs arguing against that kind of tactics, while the little dog would make good his retreat, looking back occasionally as much as to say, "I have met the enemy this time, and won the victory by stratagem."

The fox is known for large Secretiveness, and that is his central quality of character. The first skull of the fox ever presented to me as a Phrenologist was an interesting study. I had no idea what animal was represented by it, because the skull looks so much smaller than the fur-covered head of its owner, I remarked that "the location of the organ of Secretiveness was uncommonly developed, and whatever animal it was, he must be distinguished for Secretiveness, as that was the master quality in that group of organs." At that moment an elderly man came up to me who proved to have been an old hunter, and some one asked him what skull that was, and he replied with a kind of contempt, "That is a skull of a fox; I have shot many

a dozen of them; I have a good many of their skulls now laid up." Secretiveness then would seem to be the central faculty of the fox; some dogs have it, all cats have it, and they do things indirectly where most dogs would do them directly. A cat does things by stealth, especially watching slyly until its prey comes within reach; while a dog sniffs the track and follows, announcing that he is coming, and of course warning the victim of his approach.

ACQUISITIVENESS

is located in this group, and gives wideness to the head about two inches upward and forward of the ear. As this organ gives the desire for property and possession, we study its nature wisely by studying the lower animals. Those that lay up their food, as squirrels lay up grain and nuts, have strong Acquisitiveness; and generally the element of Secretiveness will be found strongly marked too. We have known a fox that was not more than three months old, to slip his chain and go to the chicken-coops, and with his paws haul out from under the poor hens, eighteen chickens, giving each of them one nip, and he then took them over into the plowed field and buried them; eating perhaps one for his midnight supper. The next morning he was innocently running about; he had chicken enough, and the poor hens were making a great complaint; he was tracked into the freshly plowed ground, and the chickens dug up. Acquisitiveness led him to possess all he could get, and Secretiveness to hide what he did not then want. If he had had an equal amount of reason he would have known that he had taken twice as many as he could have used up; but this faculty was wanting. We know that dogs bury bones; there are two or three reasons for that: one is that the meat may become softened and mellow, so that it will

come off from the bone easily, and they have enough of the gentlemanly sportsman to like their meat a little mellow; and thirdly, it in a measure hides the booty away from other dogs.

In the human development where Acquisitiveness is strong, a man desires property of every kind. If he has large Alimentiveness, an organ located just forward of the ear and below Acquisitiveness, joining it, he will lay up food, articles to eat to gratify his appetite; some take a great pleasure in laying up nuts, fruits, vegetables, and meats, and have things dried and corned and preserved, and, as the Bible says, "much goods laid up for many years"; and in proportion as people take pleasure in laying up articles of food, we find them amply developed



SELFISH ORGANS LARGE.

in Alimentiveness, or appetite; thus these faculties combine in that way. Others use Secretiveness in conjunction with Acquisitiveness, and keep it a secret as to how much money they are making. Men will go from New York to Boston or Philadelphia and quietly purchase stocks or real estate, and let it seem at home that they are worth but a hundred thousand dollars, when they have perhaps a million. That gratifies Secretiveness and Acquisitiveness too; it may also help them by saving local taxation. If Secretiveness be strong and Acquisitiveness active, there will be a co-operation of these faculties in the shrewd, secretive way of carrying on business. We may say that nearly all the adulterations of everything, from the alloy of silver and gold, to the putting of sawdust into indian meal, or cotton into flannel cloth, or linen into silk, or water into milk,

comes from the combined activity of Acquisitiveness and Secretiveness, with Cautiousness and Conscience low enough to permit it; but Secretiveness and Acquisitiveness work together in all the sly tricks and "corners" and overreaching and under-getting which are so prevalent in all the traffic from Wall Street to a peanut-stand. In the manufacture of paper which publishers have to use, clay and divers other things which increase the weight and help make up the solidity of the paper, and costs but perhaps a tenth of a cent a pound, while the paper may be sold for twelve cents a pound. Of course the intellect has to devise the ways and means, but the desire for gain, and the cunning way of using intellect to cover up, for the time being, the tricks



SELFISH ORGANS SMALL.

of trade, illustrate the activity of these organs. It would hardly be exaggeration to say, that a store full of goods of almost any kind, is, what a blunt preacher once said, "made up of falsehood"; and one has to be a good judge not to buy that which would be to him a cheat; and when the public through Secretiveness and tact learn how to detect one kind of trickery, those that perform the first act will study a shrewder way to hide the defects; consequently, men into whose eyes one can look with confidence and believe their words are truth and truth only, are more rare than they ought to be. The blood of Ananias and Sapphira has not run out, because, perhaps, the method of treatment of that kind of people has been somewhat relaxed.

ALIMENTIVENESS,

the last faculty of this group, works naturally with Destructiveness and Se-

cretiveness. Some animals are obliged to use Destructiveness to capture their prey, and that severe element is aroused and intensified by hunger and the keen demands of appetite. If the prey be such as can get out of the reach of the cat, for instance, that deals with rats and mice, she needs Secretiveness to capture the prey by stealth, because a cat is too large to follow the rat or mouse into their narrow retreats. On the contrary, the weasel that can follow a rat, being smaller and strong and active, has no Secretiveness, and appears to have no Caution; he does not mind going around where men are; he can slip away into any hole he likes, when the occasion requires it, and he will chase rats in all the labyrinth of their hiding-places throughout the house, and there is a wonderful squealing and running

when his majesty comes to encounter his enemies, because he can follow his game. He does not need Secretiveness, and his skill does not show itself as it does in the cat. So in turn each one of these faculties becomes a centre around which all its immediate associates cluster; each supplements the other, and aids in carrying out in turn the desires and purposes that are born of each faculty; and the infinite variety in the tendencies and co-ordinations of these faculties shows better when contemplating them in their activity. There are methods of determining how these faculties are accustomed to co-ordinate; but this part of the subject will be reserved for the future, after we shall have discussed all the other faculties.

NELSON SIZER.

WILL THE PURITAN RACE PERISH?

SOME writer has said, "The Puritan race is dying of pride." The writer, within a year, heard a noted speaker exclaim before a large concourse of people, "The Puritan race is doomed." The same gloomy sentiment may get utterance in various directions.

I do not suppose that the idea of discrimination between Puritan and Pilgrim is often thought of, but that the reference is in general to those who came over in the *Mayflower*, to those of like type arriving later, or landing elsewhere, to that people and their descendants whom we commonly recognize as the New England race. Should a long line of ancestry reach back to Holland, France, Germany, or Russia, it would matter not, the New England traits existing, then the individuals are freely included in our serious inquiry.

Here are people, not as graceful as the ancient Persians and Greeks, not as ponderous as the old Romans, not as versatile as the French, not as profound as the Germans, not as fascinating as the Italians or Spaniards, but in their sum total, as valuable, as much to be respected as any

that ever existed. Their preservation is to be coveted, their continuance becomes a matter of national concern, and even of world-wide consideration.

Here is a blood largely of English and Scotch origin, receiving a peculiar, a New England, a new world tinge. A specimen of this stock is observing and analytical to the keenest shrewdness; self-denying, loyal to principle, inclined to order and worship; loving regulated liberty, a natural leader and employer of his fellows. There is many a happy village, largely Irish, with two or three Yankees at the head of its business. These leading men appreciate the services, the wit, the religious and other rights of all the men in their employ, it may be, to a most admirable extent. In multitudes of cases the employés would not like to be in any one else's service. Often these men run factory, shop, or store at a loss, for the time being at least, rather than distress the help by shutting down the gates. The man may be a farmer undertaking large improvements which will not literally pay, as his wife well knows; but he, in his heart, loves to improve, to renovate.

to direct, and above all, to pay out money, honestly earned, where the recipient will be grateful, or will be helped to live and support those dependent upon the earnings of his naked hands.

Some may have an antipathy against this species of men, exult in the least prospect of their extinction; yet I freely inquire, how can we spare them from the realms of politics, religion, or business? How can we spare them socially? What community was better to live in than a typical New England neighborhood? Answer, ye who have had a wide experience, who were brought up in such society, and have since been tossed here and there upon the billows of a wandering life. All that Henry Ward Beecher has asserted, or his sister Stowe has illustrated, and so many, many others have delineated in praise of the kind of folks to which the Beechers, Edwardses, Dickensons, Winslows, Robinsons, Larneds, Bates, Lincolns, Quincys, Adamses, Winthropes, Holmeses, Garfields, and an innumerable host of others belong, has had its foundation in everlasting verity.

Well, is there danger that this kind of people, this class of families, may disappear? Yes, and the danger is personal, fundamental. Their influence may be getting muffled, may be waning; still there is much more than that to fear. In some instances the old sharpness is blunted, the quiet confidence is passing into uneasiness, the perseverance becoming less marked, the church tendency lessening along with a partial loss of simplicity, and some parting, alas! with purity. Nor is so much all. There are fearful clouds rising upon different portions of the horizon, and upon one, large and dark, we seem to read in raised, black letters the terrible word, Extinction.

The time has come to sound an alarm, to run with the truthful message, to put away every embarrassment and "cry aloud." Just where the writer happens now to be, in a country town, in Worcester Co., Mass., there is much to startle one. In Worcester itself, "the heart of the commonwealth," in all the New Eng-

land cities, in sections of the Middle States, and in the far West, there are primary circumstances which startle all who are very thoughtful. We find families where children might have had a heaven to grow up in, childless! Like households with only one or two children. These may not be rugged. In not unfrequent instances, where there have been many children, all have gone to early graves! Districts that used to embrace fifty or sixty pupils now assemble eight or ten. If a district now keeps up to its older number of pupils it is because foreign families have settled in the neighborhood. Consolidation of districts is going on for lack of children.

There are changes which indeed are not improvements. The strain on life grows severe, the fashion stylish, the habits expensive, the struggle to keep up or surpass intense, pitiless.

Woman, as we see her by the eye of history stepping upon the rock of Plymouth, woman as represented by our grandmothers, woman as a helpmeet, woman ever the central figure in social life, the marked, the Puritan woman is failing the Puritan man. Who then will help him?

I know of fathers who almost shudder at the mention of their daughters' names. They know, as no other man can, the riches of goodness, the sparkle of love and genius in the bosom of these girls; but how shall the father be able to dress, school, and rear them as other folks do, and they retain their health, freshness, animation, and innocency? If he would limit them to his income, instruct them in hygiene, render them philosophical generally, who will aid him? How many will help thwart him and render those dear daughters discontented, treacherous to his wishes and wisdom. His own friends may plot against him. Fortunate is he if he have a son who is patient, who honors his father, who eschews popular vices and all vice, who respects the family name, who reveres the whole vast circuit of God's laws, who stands like a mountain of firmness by what is prudent

and solid, by eternal common-sense and undying righteousness. There are Puritans that have such sons. Is the number comparatively large? Is the percentage on the increase?

Go, go in disguise, if you please, into the by-ways of cities, the country stores, the post-offices; note what you see and hear. Confine yourself now to the land of the Pilgrims. You can not forget that these young men are soon to stand in the place of the older, and that the mortality, too, of elder and prominent men at present is very great. Repair to the church on Sunday, after all the swearing, boasting, mocking, tobacco-mulching, and so on, you have been obliged to witness the week before, and find many of these fellows there, if you can. Say over to yourself, "Puritan," "New England." Repeat the names of the New England States; think of what were their characteristics. Let their history, their lead, their eminence pass before you. Interrogate your very soul; question the lessons and warnings of the world's history; inquire relentlessly, whether without reformation the youth of these States are going to bear up and lift still higher, as they ought, the prestige of these States.

The writer is not trying to make out a case. He is not saying or intimating that there is no good to be seen. He does not aver that there is no flickering hope in his sobered heart, that there will be repentance and rescue; that a remnant, at the worst, will be saved. Yet, he is thoughtful, awakened, whispering to himself, "We must be resigned if this choice blood becomes weakened, corrupted, and is even finally lost out of all human sight in the great, surging, endless river of events."

I have in my list of acquaintance a few young men in whom I delight. Some of them are married. Half of these I deeply pity. They have very fashionable or invalid wives. They may be both. A fashionable invalid woman of the north-eastern States is the most expensive creature, if we except Barnum's white elephant, "under the whole heaven." The number of maladies, the number of

remedies, the mysterious ailments, the retinue of doctors, the multiplied quotations from them, the noted resorts to be visited, the tremulous conditions to be observed, the breathless exigencies extant and forecast, excite, confuse, and alarm me. My friend may have a generous income. Really I see he needs it all. In my simplicity or stupidity I may recommend to a husband or wife, or to a brother or sister of the same, some practical health publication or clear-headed hygienic physician, or a home-like institution, where good treatment and counsel may be obtained, but I have rarely found welcome for my advice. When out of my own rather slender purse I have ordered some vital literature sent to their address, it has, perhaps, been accepted as a faint or distant curiosity, or a kind of flat proof that somebody has a funny hobby.

We may well glory in our common schools. That is a Puritan glory. But I do not see why school committees, including physicians, should be so confident the curriculum is perfect, and that no young person is ever injured by study or confinement. The savants declare that even the Normal schools are never too severe for the physical integrity of girls. The evils alleged all proceed from "late dancing and late suppers." These *are* guilty things indeed. But is it customary for schools, in a motherly way, to spare at all the young ladies suffering from these dissipations? Do they spare them for anything? Do they not make telling, ceaseless, ingenious appeals to the large cautiousness and approbateness of the girl pupils? Which is usually uppermost, the welfare of human beings or the feats of disciplinarians, the pride of the school board, and the astonishing feats of professed educators?

Ride through the country towns of New England, and on roads away from depots and factories, you will find deserted houses, old cellars, dying orchards, and the like, showing that the rural population is declining. Many a field once cultivated is now growing to wood. Many a freehold has passed from a Yankee to

an Irish name. Many, of Puritan descent, have rented their farms and moved into some fashionable centre. Poor health, on both sides of the house, is the common reason given. It may sometimes be added, my son does not like farming, or, my daughter works in the shop, and if we moved she could board at home. It would not be usually expected that the daughter would like housework, even at home.

Now, our fathers sometimes plowed and harrowed rocky hills, which, now we know of so much better land, should always be left simply to growth of wood. It still remains that there is much land in the northeastern States, poorly tilled, or not tilled at all, that could be worked with profit. There are multitudes of farms that could be bought for two thousand dollars—what the buildings cost, say—which would nicely support an average family with frugal habits. In some sections a little more than half that sum would buy a farm, on which one could easily keep a horse, ten head of cattle,

and so on. With good markets near by, and postal arrangements whereby a daily paper could be read on the day it was published, why are not these homesteads rapidly taken up? Because there is so little science and so much extravagance. Because of restlessness and vanity. Because of a later-born, hot, unreasoning tendency to rush to over-crowded cities and other huddled centres. Because of a lack of the love of Nature. Because of a fatal disregard of the best sources of health, and an undervaluing of every sort of purity and natural excellency.

"Greece was never more adorned with arts, fuller of schools, more resonant of music, richer in genius, more showy in religious sacrifices, than when she was struck with hopeless death! It was the decay of virtue, the triumph of selfish over public tastes, the absence of self-denying men, the enervation of luxury, the pride of vain philosophy, the hypocrisy of religion that killed her!"

Perhaps I am wandering. Anyway, I will here again resume silence.

IMPERSONAL.

MILTON'S "SAMSON AGONISTES."

MILTON is chiefly regarded as a great epic poet, and as an epic poet he has no rival. His power of style is unsurpassed. In strength of conception, there is no poet like him but Dante. Yet there is a vast difference between "The Divine Comedy" and the "Paradise Lost." The deep, melancholy grandeur of the former is unrelieved by ornament. In every line we trace that intensity of spirit, that asperity which is the result of pride struggling with misery, and that terse, fervid expression which is so characteristic of the father of Tuscan poetry. How different is the epic of Milton! The stately order of its diction has the effect of an incantation. The sublimity of the subject, and the energetic idealization of its characters, even are of secondary importance as compared with the delicate and beautiful metaphors, the classical

simplicity of ideas, the erudite illustrations which illumine that great poem from first to last. The mind is electrified by the manifold magic of its imagery. Every line excites the idea of indefinite power. There is, indeed, no finished picture; amid all its lavish adornments the underlying thoughts are few; but for intellectual raciness, delicate fancies, and exquisite choice of language, we realize, as we can realize nowhere else, the magical influence of poetry.

Milton wrote many admirable things besides his majestic epic. His exquisite minor poems, his sonnets, the masques of "Arcades" and "Comus," the companion pieces "L'Allegro" and "Il Penseroso," the tragedy of "Samson Agonistes," and the "Paradise Regained," all partake of the same strong family likeness, dignified with a grace, tranquillity, and greatness

of mind to which it is difficult to find a parallel. Nor must it be forgotten that, like Dante and Petrarch, Milton was a statesman, and one of the most energetic and voluminous political writers of his age. To-day, however, we would glance at him as a dramatist.

To write tragedy, and write it well, has been the highest aspiration of the scholar and the poet. All are agreed that it is the grandest of all poetical compositions. There is something in tragedy to effect power over the human mind beyond anything else. When you read Homer, or Virgil, or Horace, or Tennyson, or our own Longfellow and Whittier, the mellow cadence of the rhymes, the charm of diction, the beauty of the narrative, or the melody of the verse enchant you; you float in an atmosphere of poetic bliss; sensuous images surround you; the shimmer of golden sunshine, of silver dew blinds you; your eyes are closed, and you listen only to the music which, whether it breathes in lofty diapasons to the swaying of the pines on Ida's wooded summits, or the dash of the oars of Æneus' smart rowers through the Ægean blue, or chants to the dirge of Pennacook's dusky princes, or Evangeline's lament, or joins the chorus of the minstrels at Arthur's table-round, is equally fascinating and delicious. But take Æschylus or Goethe or Racine or Shakespeare and note the change. You are filled with a diverse feeling. Wonder, sublimity, grandeur, nay, sometimes terror, fill your soul. It is not alone the music of the harp and lyre, the fairy enchantments of metres and rhymes and language clothed with ravishing sound; the spirit pervades you, not the diction. You are made to think, to reason. The delineation of character, the astute analysis of passion, the interest awakened by the tragic fate of noble characters, all these attest the superiority of tragedy to other poems.

John Milton had much that was dramatic in his genius. Many of his characters he exhibits dramatically, and portrays them after the fashion of the great masters of human nature. Even the

action of his great epic is dramatic both in design and execution, and the chief interest from beginning to end centres around a single great tragic character, the fallen archangel. And how skilfully drawn are his representations of Adam and Eve! They are analyzed and made to show themselves with a rare theatrical skill. The portraits seem verily to walk out of the canvas. That a writer who exhibited superior dramatic skill in works professedly undramatic should excel in writing tragedy with dramatic effect is not wonderful. Accordingly, we are not disappointed in his "Samson Agonistes."

Milton's selection for his hero was felicitous. The history of Samson, from his first appearance as deliverer of Israel to his death, is an inspired tragedy. Three thousand years or more have passed since he brought destruction on himself and his enemies by that last signal act of his life, and yet the name of the mighty Hebrew is still employed as a designation of those who possess herculean strength. In an age when physical prowess was the best title to superiority, there was no man who could stand before him in all the world. Whole armies even were vanquished and put to flight before the power of his terrible might, and heathen princes trembled at the mention of his name. Yet strong as he was physically, the unshorn Nazarite was weak as a child and easily led astray by his passions. His character, in fact, combined the most opposite qualities, and his life abounded in startling contradictions. He was rash in danger and cautious in safety. He had the courage of a hero and the timidity of a coward. He hated the Philistines and yet he chose them mainly for his associates. He was mighty in prayer, and yet how seldom did his daily life accord with this religious devoutness. Plastic as wax in the hands of the vain woman, he was cruel and vengeful to atrocity when the spell of wild and stormy zeal was upon him. He seemed to revel in delight amid the bloodiest carnage, and yet he loved better to sleep in the bower of beauty and

drown his senses in sensuous pleasures. There is so much of good and bad, strength and weakness, success and failure in the man that we are drawn to him when we do not like him. When he brings upon himself merited punishment, we pity him. We ignore his worst passions and lament his fall, charmed by his generosity and patriotism, dazzled by his valor and wondrous feats of arms.

Samson, both in his good and bad qualities, is the perfect type of the individual Semite. Essentially egotistical, he could recognize no obligation to any but himself. It was a sacred duty in his eyes to pursue his revenge, to gratify his desires, to claim what he believed to be his right. Daily morality and religion were with him two widely different things. He could stain himself with domestic crimes, sacrifice his own life and his country's weal to an adulterous caprice, and yet, with an entire faith, he felt himself the especial object of Jehovah's regard, and every act of his the exponent of the divine will. Kindness and cruelty, manliness and meanness, sincerity and mendacity, firmness and indecision, selfish sensualism and religious exaltation were combined with fearful extremes in this one man. None of the old Greek heroes or the Scandinavian demigods can match with diversity of character and romance of exploit this picture of Samson as drawn by the pen of the inspired artist. And so this strange mortal, with the good and evil angel ever struggling in his soul, was swept on in his stormy, changeful career to the sad day, when, betrayed by the woman that he loved, he was consigned—weak, blind, a captive, and "disglorified"—to perform degrading labor in the prison-house of his relentless foes.

The drama opens with a soliloquy by Samson before the prison in Gaza. It is a gala-day, and the captive Hebrew, in the general cessation of labor, is allowed to wander forth from his place of labor

and imprisonment. Seeking a retired spot, not remote, he sits down and bemoans his lot. The poet's description is very picturesque and impressive. Samson's prison experience has not proved unprofitable. He probably learned more of himself now than he had known in all his previous life. The deprivation of his strength, under the circumstances by which he had been overcome, clearly indicated its miraculous origin, and the hero for the first time felt that, although he had begun to deliver Israel, the employment of the gifts with which he for special purposes had been invested, had



SAMSON AT THE MILL.

rather been the incidental effect of his own insensate passions than the result of those stern and steady purposes that became one who had so solemnly been set apart, even before his birth, to the salvation of his country. These and kindred thoughts brought repentance to his soul. Hear him in his grand soliloquy :

"Why was my breeding order'd and prescribed
As of a person separate to God,
Design'd for great exploits ; if I must die
Betray'd, captive, and both my eyes put out,
Made of my enemies the scorn and gaze ;
To grind in brazen fetters under task
With this Heaven-gifted strength ? O glorious
strength.
Put to the labor of a beast, debased
Lower than bond-slave ! Promise was that I
Should Israel from Philistian yoke deliver :

Ask for this great deliverer now, and find him
 Eyeless in Gaza at the mill with slaves.
 Himself in bonds under Philistian yoke:
 Yet stay, let me not rashly call in doubt
 Divine prediction; what if all foretold
 Had been fulfill'd but through mine own default,
 Whom have I to complain of but myself?
 Who this high gift of strength committed to me,
 In what part lodged, how easily bereft me,
 Under the seal of silence could not keep,
 But weakly to a woman must reveal it,
 O'ercome with importunity and tears.
 O impotence of mind, in body strong!
 But what is strength without a double share
 Of wisdom? vast, unwieldy, burdensome,
 Proudly secure, yet liable to fall
 By weakest subtleties, not made to rule,
 But to subserve where wisdom bears command!
 God, when he gave me strength, to show withal
 How slight the gift was, hung it in my hair.
 But peace, I must not quarrel with the will
 Of highest dispensation, which herein
 Haply had ends above my reach to know."

The captive hero, however, still further bewails his fate, lamenting most for the loss of his eyesight. It is Milton, rather than the complaining Hebrew, who is speaking now. No one but he who was blind could speak so pathetically and truthfully as the blind poet here makes his tragic hero. Few, I ween, can read it without the heart ache, seeing in the lines Milton's lament for his own misfortune:

Why am I thus bereaved, thy prime decree?
 The sun to me is dark
 And silent as the moon,
 When she deserts the night,
 Hid in her vacant interlunar cave.
 Since light so necessary is to life
 And almost life itself, if it be true
 That light is in the soul,
 The all in every part; why was the sight
 To such a tender ball as the eye confined,
 So obvious and so easy to be quench'd?
 And not, as feeling, through all parts diffused
 That she might look at will through every pore?
 Then had I not been thus exiled from light,
 As in the land of darkness; yet in light,
 To live a life half dead, a living death.
 And buried; but, O yet more miserable!
 Myself my sepulchre, a moving grave;
 Buried, yet not exempt,
 By privilege of death and burial,
 From worst of other evils, pains, and wrongs;
 But made hereby obnoxious more
 To all the miseries of life."

The lament is scarcely over when the chorus appears in the person of certain friends of his tribe who have come to condole with him in his captivity. The

changed appearance of the unfortunate hero amazes them, and leads them to exclaim:

"Can this be he,
 That heroic, that renown'd,
 Irresistible Samson? whom unarm'd
 No strength of man, or fiercest wild beast could with-
 stand?
 Who tore the lion, as the lion tears the kid;
 Ran on embattled armies clad in iron;
 And weaponless himself,
 Made arms ridiculous, useless the forgery
 Of brazen shield and spear, the hammer'd cuirass,
 Chalybean temper'd steel, and frock of mail
 Adamantean proof?"

Samson receives his friends with hearty joy, and in the dialogue that follows there is much pathos, and some portions have a high declamatory character. Especially is this true of Samson's utterances, who becomes eloquent in his denunciation of the Hebrew's apathy in leaving him to cope single-handed with the Philistines. We quote the concluding portion of this grand declamation:

"Had Judah that day joined, or one whole tribe,
 They had by this possessed the towers of Gath,
 And lorded over them whom now they serve.
 But what more oft in nations grown corrupt,
 And by their vices brought to servitude,
 Than to love bondage more than liberty,
 Bondage with ease than strenuous liberty;
 And to despise, or envy, or suspect
 Whom God hath of His special favor raised
 As their deliverer; if he aught begin,
 How frequent to desert him, and at last
 To heap ingratitude on worthiest deeds?"

After some didactic and philosophical reflections from the chorus,—and here we may observe that Milton, after the fashion of Sophocles, elects the chorus to carry on the moral progress of the drama,—Manoah, the gray-haired father of the hero, enters. He has come also to comfort, as he can, the sorrows of his son, and with a design to procure his liberty by ransom from his uncircumcized enemies. He, moreover, informs him that the feast that day celebrated by the Philistine lords, accompanied by pomp and games and sacrifices, is in honor of their triumph over him, and of Dagon's assumed victory. Samson answers by the most merciless self-condemnation of his own follies. A hopeless despair invades

him ; he refuses to have his father seek his ransom, declaring his hopes all flat :

" Nature within me seems
In all her functions weary of herself.
My race of glory run, a race of shame,
And I shall shortly be with them that rest."

While the chorus are engaged in solacing him, the woman Delilah, the cause of all his woes, visits him, dressed and attended haughtily from the great wealth she had secured by his betrayal. Samson recognizes her with rising choler, and a dialogue of great dramatic power ensues between the treacherous beauty and the vanquished brave. Delilah seeks to ex-

Where once I have been caught ; I know thy trains,
Though dearly to my cost, thy gins, and toils ;
Thy fair enchanted cup, and warbling charms,
No more on me have power ; their force is null'd ;
So much of adder's wisdom have I learn'd,
To fence my ear against thy sorceries.
If in my flower of youth and strength, when all men
Loved, honor'd, fear'd me, thou alone couldst hate
me,

Thy husband, slight me, sell me, and forego me ;
How wouldst thou use me now, blind, and thereby
Deceivable, in most things as a child
Helpless, thence easily contemn'd, and scorn'd,
And last neglected ! How wouldst thou insult,
When I must live uxorious to thy will
In perfect thralldom ; how again betray me,
Bear my words and doings to the lords
To gloss upon, and, censuring, frown or smile !
This jail I count the house of liberty
To thine, whose doors my feet shall never enter.



SAMSON DESTROYING THE TEMPLE.

tenuate her guilt, pleads cunningly her sorrow, and asks the hero's pardon. Samson misdoubts her advances, heaps imprecations on her, but the wily dame persists, and under various pretexts seeks excuse for her offence. The poet shows much skill and a rare knowledge of the feminine heart in the sophisms that he puts into Delilah's mouth. Samson, with more manhood than he had shown in all his former life, scoffs at her arguments and resists her entreaties. Hear him :

" No, no ; of my condition take no care ;
It fits not ; thou and I long since are twain :
Nor think me so unwary or accursed,
To bring my feet again into the snare

At distance I forgive thee ; go with that ;
Bewail thy falsehood, and the pious works
It hath brought forth to make thee memorable
Among illustrious women, faithful wives !
Cherish thy hasten'd widowhood with the gold
Of matrimonial treason ! so farewell."

Delilah takes refuge from his reproaches under the cloak of patriotism, and there is some truth in what she says :

" Fame, if not double-faced, is double-mouth'd,
And with contrary blast proclaims most deeds ;
On both his wings, one black, the other white,
Bears greatest names in his wild airy flight.
My name perhaps among the circumcised
In Dan, in Judah, and the bordering tribes,
To all posterity may stand defamed,
With malediction mention'd, and the blot

Of falsehood most unconjugal traduced.
 But in my country, where I most desire,
 In Ecron, Gaza, Asdod, and in Gath,
 I shall be named among the famousest
 Of women, sung at solemn festivals,
 Living and dead recorded, who, to save
 Her country from a fierce destroyer, chose
 Above the faith of wedlock-bands my tomb
 With odors visited and annual flowers;
 Not less renown'd than in Mount Ephraim
 Jael, who with inhospitable guile
 Smote Sisera sleeping, through the temples nail'd.
 Nor shall I count it heinous to enjoy
 The public marks of honor and reward,
 Confer'd upon me for the piety
 Which to my country I was judged to have shown."

She leaves him with these words, and another visitor comes upon the scene, the great Harapha of Gath, of the race of the giants. There is little love lost between the two champions, who hurl upon each other defiant threats and challenges to encounter. The sullen, despairing wrath of Samson is in perfect harmony with his character. He hates the Philistines still, and soon has opportunity granted him to signalize this spirit; for hardly has the giant departed when a public officer arrives to request his presence at the feast to make sport for the vaunting lords. The hero at first refuses with absolute denial; but persuaded by the chorus and by an inward premonition that it was ordained of God, he consents at last, and accompanies the herald, who came the second time with haughty threatenings to fetch him.

The chorus still remain on the spot, to which Manoah returns, again hopeful and joyful at the prospect of speedily procuring his son's release. During the discourse the messenger enters to announce the catastrophe, which, by a fine stroke of art, is only by degrees distinctly related. Manoah at first is inconsolable, but he is comforted at length in the assurance that the hero had died victorious over the Philistines. There is more of triumph than of woe in these words:

"Samson hath quit himself
 Like Samson, and heroically hath finished
 A life heroic; on his enemies
 Fully revenged, hath left them years of mourning,
 And lamentation to the sons of Caphtor
 Through all Philistian bounds: to Israel
 Honor hath left, and freedom, let but them

Find courage to lay hold on this occasion;
 To himself and father's house eternal fame;
 And, which is best and happiest yet, all this
 With God not parted from him, as was fear'd,
 But favoring and assisting to the end.

"Near by his father's house I will build him
 A monument, and plant it round with shade
 Of laurel ever green, and branching palm,
 With all his trophies hung, and acts enroll'd
 In copious legend, or sweet lyric song.
 Thither shall all the valiant youths resort,
 And from his memory inflame their breasts
 To matchless valor, and adventures high:
 The virgins also shall, on festal days
 Visit his tomb with flowers, only bewailing
 His lot unfortunate in nuptial choice,
 From whence captivity and loss of eyes."

Then, with the concluding strain of the chorus lingering on the ear like a solemn hymn, in which the little that is mournful only heightens the majestic sweetness of all that is musical, the "Samson Agonistes" ends.

In this really wonderful production there is little to criticise. It is lofty in its conception; in greatness of thought and in sustained vigor of execution it bears no little resemblance to the great works of the Greek tragedists, to which Milton acknowledges his indebtedness for his models. The tragedy was not intended for the stage, yet we should do wrong to Milton in denying him the skill of the artist while we grant him the faculty of the poet. If we do away with actors and stage and audience the "Samson Agonistes" will thrill and move us no less than the "Œdipus" of Sophocles or the "Hamlet" of Shakespeare, through a more intellectual, if less passionate medium. And therein is the difference between Milton and Shakespeare. Both were artists, for without this there is no genius; but Milton is artful as a dramatist to be read, Shakespeare as a dramatist to be acted. A poem may not be theatrical and yet be highly dramatic, indeed, have all the effects of the drama in person, and still have no effect in representation. Histrionic capacity is not equal always to the rendering of some of these untheatrical dramas. In Shakespeare even, no human skill could correctly imitate the Ariel of the "Tempest" or the fairies of the "Midsummer Night's

Dream." The storm in "Lear" is a highly dramatic agency when our imagination is left free to conjure up the angry elements:

"Bid the winds blow the earth into the sea
Or swell the curled waters."

But a storm on the stage is but a poor imitation, never half realizing the effect which the poet designed and with which the reader is impressed. No one would say, however, that any of these were undramatic, but only that they are not theatrical. So it is with Milton's "Samson Agonistes." Garrick himself could have made nothing of Harapha. The hypocrisy and power of Delilah would, it is true, have partially required and elicited the talents of the player, but in scarcely another character could the actor greatly assist the genius of the poet. Samson

himself, loaded with his fetters, blind, never changing even his position, never absent till in the last act from the scene, would defy the utmost capacity of any actor. His theatrical representative could be but a grand reciter.

The poet is a great creator. Nor is the creation confined to images wholly, but he also creates men, a vast and interminable posterity, scattered over the whole earth. What wonderful works, in our land and in foreign lands, in our age and in distant ages, can trace their origin step by step from influence to influence to the "blind old man of Scio's rocky isle"! Of how many poets was Homer the creator! Such is the vitality of genius. It is the only spiritual transmigrator, passing through all shapes, often losing identity but never life, and animating one soul after another from age to age.

FRED MYRON COLBY.

THE FEEBLE-MINDED AT SCHOOL.

THAT class of defectives ranged under the heads of imbeciles, idiots, cretins, and epileptics, always the unanswerable interrogatives to psychologists, presents also historically one of the most difficult supplements to the study of the progress of civilization and its consequent moral elevation.

Genealogical chemistry proves the majority of these cases congenital, the direct result of gross deviation from the laws of health and of nations. The fact, therefore, that all nations, irrespective of their degree of enlightenment, are afflicted with these unfortunates, opens a train of thought not at all favorable to the accepted theory of physical and moral progress, that philanthropy and the alleviating spirit of medical science have developed in equal ratio with the general progress of civilization. As will be seen in the following synopsis, the comparative impotency of mankind in the individual governing, guiding, and restraining principle, and in the dominant elements of impulse and action, is nowhere more

substantially illustrated than in these unfortunate propagations of man's vice and weakness, and in the strenuous efforts of philanthropy and medical science to remedy and stem its evil.

Cretinism and all forms of idiocy have abounded in every age and country. In the Alpine regions whole villages are reported with scarcely an able-bodied man. In Africa, on the northern slope of the Atlas range; in Asia, around the base of the Himalayas; in China, Tartary, and Sumatra; in South America, on the Atlantic slope of the Andes; and through the valleys of the Alleghany, Green mountains, and Hoosac ranges in the United States, these infirmities are common and not by any means on the decrease. The earliest custom of nations was to destroy them, in common with all disabled members of the community. As Christianity and a new idealized form of superstition softened "man's inhumanity to man," they began to be considered creatures specially favored of God. We read of the great Tycho Brahe listening to the mutterings

of an idiotic companion as to a revelation from above. In France they were called "Innocents," in Switzerland and Germany "Chretiens," a corruption of "Christian." Civilization was indeed ameliorating their condition, and in the seventeenth century we read of the first experiment in training idiots as educable beings by the monk Vincent de Paul. But no efforts to trace the evil to its origin and stop its source are recorded. Itard and Seguin of Paris, and Engenbuhl of Berne, are first heard from as giving the subject of idiocy their scientific and practical attention in 1800. Their success ushered in a new era for these unfortunates. Public and private institutions for the feeble-minded sprang up in various parts of Europe, and America was one of the earliest to signalize her philanthropy in the establishment of a training school at Barre, Mass., in 1848, by Dr. H. B. Wilbur. Others soon followed, until now there are some sixteen in successful operation.*

The manner of conducting these institutions, and the method of training the feeble-minded, as observed by us at the Pennsylvania Training School, near Media, which is under the direction of the experienced specialist, Dr. I. N. Kerlin, may be of interest to our readers.

Half way up the steep eminence which the postmaster at Elwyn pointed out as "the school grounds," we found ourselves on a gravelled and terraced walk leading amid flowers and evergreens to the entrance of the main building. Jubilant shouts of children announced their presence and ours as they approached us from all directions, eager to attract our attention. "See my doll!" said a tall, overgrown girl, holding that article with childish delight, in ridiculous proximity to our nose. Viewing it at that uncomfortable angle, we made some pleasant remark and hastened up the hill where a gathering of children which, but for odd,

* It should be mentioned that attempts were made as early as in 1818 to instruct idiot children at the asylum for the deaf and dumb in Hartford, Conn. Later, in 1838, Dr. Samuel C. Howe made some very successful experiments with idiots in the Perkins institution for the blind in Boston, Mass.—ED. P. J.

distorted features and silly gestures, looking like a picnic from the city, were enjoying Saturday afternoon. Our appearance emptied swings and benches in a twinkling. They viewed us from head to foot, touched our garments, wrung our hands, and finally told us to kiss them, with an imperturbable air of condescension.

Returning to the Institution, we entered the kitchen, where some of the older inmates are busy preparing supper, under the supervision of matrons and instructors. In the bake-house adjoining everything is brushed up and quiet. But the rows of loaves and biscuits in huge glass cases tell of the busy hands which are now folded in right manly fashion across the white-aproned chests. In the dining-room, the tables are covered with white cloths, stone china, and coarse napkins. The dormitories are well aired and lighted, and the beds of attendants we found invariably among their charges. Besides the regular rounds of the night-watch, the apartments of the officers are so distributed among the several dormitories as to leave none outside of their direct supervision.

In the evening we repaired to the "Keystone Hall," where the day closed with calisthenics. The hall is furnished with a piano, dumb-bells, and other gymnastic apparatus. The walls are adorned with a few large pictures, for, according to the Superintendent, "cheerfulness is the first step towards a cure." A number of charts with curious curves, angles, and triangles, I was informed, were the invention of a former pupil, who, unable to remember the exercises, had drawn these lines and circles to represent the movements and the order in which they occurred. These charts have since proved a valuable reference to like defectives. As one class after another marched and counter-marched, every motion of the body in accordance with the music, and anon a quick glance at the suggestive motions of the teacher, or at the ever-helpful charts on the wall, the scene suggested anything than weak imbeciles. One very serious-looking youth had a class under such excellent discipline that we were not a little surprised to hear

he was also a former pupil. The singing of a hymn and recitation of the Lord's prayer in concert, led by the Superintendent, closed the exercises. But the children resumed their seats with faces indicating great expectations, which were generally realized in the Superintendent's relating some story or cheerful incident of the day, which might animate the slow minds to thought.

Then the little ones who enjoyed their frolic in the afternoon went to the dormitories for the night, while the older ones dispersed for a few hours' enjoyment after their own fashion.

Leaving the hall, we passed three club-rooms full of game-playing, reading, and buzzing members. We noticed with pleasure the absence of those vulgar characteristics of club-rooms—tilted chairs, feet-supporting tables, spittoons, and tobacco smoke. The sound of music made us hasten across the lawn to a little house standing amidst a clump of trees, where we found a fully-equipped brass band of boys of all ages intent on their music sheets. Our entrance started a whispered consultation, which resulted in the band playing several pieces so correctly that we were convinced, if feeble-minded in all else, they were quite sound in music.

Sunday morning was ushered in quietly. Sunday-school was held in the music hall, where we noticed also a number of glass vases holding specimens of the children's kindergarten work, with name and age attached. While the children contributed heartily to the singing of hymns, they wriggled impatiently in their seats during the reading of Scripture. They followed with difficulty the train of thought which the teacher's patient illustration endeavored to draw them. Some very queer answers were given to questions. "Who was Moses?" "Moses!" shouted some one in the background, quite triumphantly.

"But what did Moses do?"

"He took his poor relations to the wilderness."

"Yes, and they growled at him too because they hadn't anything to eat," some

one added, whose chubby cheeks showed that she was no lover of fasting.

"And what did they do when God sent them manna to eat?"

"I guess they said grace like we do."

Among the refractory pupils who took part in the lesson, only after repeated calls from the teacher, was one who maintained a sullen silence. The teacher vainly endeavored to get a single word from her. Finally the other children were allowed to depart, and the retained pupil began to cry. The teacher bit his lip, looking more than vexed. Just then the dinner-bell rang. "When you have recited a verse of this hymn you can go to your dinner, not before." Somebody wiped her eyes at once, and the words were rattled forth with remarkable volubility, and promises of better behavior were promptly given.

On Monday morning a long line of children were stationed in the corridor awaiting the matron's inspection preparatory for school. Pockets were turned inside out, and, by dint of persuasion, buttons, strings, nails, and other treasured collections are allowed to remain in the matron's keeping until after school. The tendency of the children to absent-mindedness in handling these odds and ends is thus prevented, and undivided attention to the teacher secured. A short exercise in the gymnasium, accompanied with enlivening music, infuses that fresh life and cheerfulness into the pupils which is such a helpful factor in the school-room. The carefully graded classes then repair to their several rooms, where everything is conducted in the routine and discipline of ordinary schools. A first look at the training class, the youngest, is not very encouraging. Their listless faces and limp attitudes show no sign of interest or will. The boxes of sand, building blocks, scissors, and paper which were placed before them, are handled clumsily and timidly, or the articles receive nothing but a vacant, listless look. Presently the teacher comes around, builds a simple tower, arranges a circle of beads, and makes a beginning for all.

The children laugh, and looking eagerness, wonder, and perplexity, their fingers involuntarily start to work from imitation to comprehension and conception, with a rapidity that proves this the best method for developing the intellect. Fatigue is forestalled with a lunch of gingerbread, and a turn in the gymnasium, where balancing cups of water while stepping over obstructions, rolling balls, and swinging poles, give recreation and play to the muscles. The gymnasium is thus alternately the recess-room for the different classes graduating its exercises from the simple activity to the difficult performance of the more advanced.

During the kindergarten and regular school course, the children's proper sphere of usefulness is ascertained by observing their tastes and bent of mind. The most capable are afterward sent to the bakery, upholstery, carpenter, and shoe shops, to learn the trade; others are taught in agriculture, and the remaining are employed from one to four hours each day, according to their strength, in the kitchen, laundry, sewing-room, stables, and the repairing of roads. The vicious are thus kept out of mischief, while the wholesome effect of change from study and play to work, is seen in the sprightly activity and contented faces to be met on all occasions.

The entire course of training, from the attendant's first instructions in dressing, patiently holding up each garment for its little ones to don, to the finishing examination of graduating intelligence, is so thorough in detail, and so in harmony with the mental and physical requirements, as to leave no hidden force in the human constitution dormant. Every element is called into requisition, every power and inclination is made to serve the end desired. The body, subject no longer to an erratic, unconscious will, is compelled to act systematically; the mind, equally freed and employed, follows, and little by little nature's malformed forces are moulded anew in those most capable of improvement. It is true that some remain hopeless idiots, and a great many never attain mature intelligence. But

while the former have there a permanent refuge from street abuse, and the latter are enabled to return to their parents with sufficient intelligence to make themselves useful where formerly they were a hindrance and anxiety, there are those who enter the institution in anything but a promising condition, and leave it as competent workers.

BERTHA A. WINKLER.

GOOD-NIGHT.

Across the marble floor the shadows fall.

Night's curtain dropped by Luna's fairy fingers
Hides softly all the garish light of day,

While in our hearts the sweetest memory lingers.

Shut out all turmoil, care, and weary strife,

The soul uplifted from its weight of sorrow,
Sees with pure eye of faith the golden dawn,

Beyond the midnight sky a radiant morrow.

CALLIE L. BONNEY.

PERSONALITIES.—Keep clear of personalities in general conversation. Talk of things, objects, thoughts. The smallest minds occupy themselves with personalities. Personalities must sometimes be talked because we have to learn and find out men's characteristics for legitimate objects; but it is to be with confidential persons. Do not needlessly report ill of others. There are times when we are compelled to say, "I do not think Bouncer a true and honest man." But when there is no need to express an opinion let poor Bouncer swagger away. Others will take his measure, no doubt, and save you the trouble of analyzing him and instructing them. And as far as possible dwell on the good side of human beings. There are family boards where a constant process of depreciating, assigning motives, and cutting up character goes forward. They are not pleasant places. One who is healthy does not wish to dine at a dissecting table. There is evil enough in man, God knows! But it is not the mission of every young man and woman to detail and report it all. Keep the atmosphere as pure as possible, and fragrant with gentleness and charity.—JOHN HALL.

THE PRESIDENTS OF THE BRITISH AND AMERICAN ASSOCIATIONS OF SCIENCE.

THE terms of cordial amity on which the British Association for the Advancement of Science consorted with the American Association of like nature, during their respective meetings at Montreal and Philadelphia, will probably lead to a closer relationship than has existed heretofore between the scientific men and women of Great Britain and the United States. The reciprocity of platform courtesies and conference that vicinage permitted made it evident to our learned visitors from over sea that scientific investigation had devotees among Americans, whose proficiency was worthy of their respect, and that co-operation would be mutually helpful. There is, in fact, some prospect of the formation of an international society, and it is mooted that the American Society will be invited to attend the next meeting of the British Association.

It is appropriate, therefore, we think, that the Presidents of the two Associations should be presented in one Number of the PHRENOLOGICAL, that the reader may obtain some idea of the appearance and character of men who are adjudged worthy of so eminent a place in scientific affairs.

Lord Rayleigh, the President of the British Association, is a man of buoyant temperament, excellent health, and flowing spirits. He enjoys life, and impresses those around him with animation and good-cheer. He evidently is full of vital energy; believes in pushing forward his enterprises to completion, and is intolerant of unexplained delay in any work that interests him. He has that ardent zeal that infuses life into work, and makes his colleagues as it were magnetically alive and efficient. He is a man of strong convictions, is self-reliant and positive, ambitious to lead, and capable of leading in whatever engages his interest. He is a man of observation, matter-of-fact, and replete with facts—few pos-

sess a better memory than Lord Rayleigh, and have more suggestiveness. He shows very eminent constructive talent, ability to understand the relations of force, and to devise and plan machinery. His intellect is peculiarly apt for statistical investigation; it is omnivorous, so to speak, in the apprehension of data and details. Numbers in their complex infinitude of relations have no terror for him—the development of Calculation as shown in the portrait is striking, and Order, adjoining it, is also well marked.



LORD RAYLEIGH.

He should be a good speaker with so much language and memory, and such an excellent physique at the basis of his mental activities.

John William Strutt, otherwise Lord Rayleigh, is but forty-two years of age, yet has taken a very high position in English science, on account especially of his remarkable ability as a mathematician. He studied at Cambridge University, where his record was brilliant. He is a Fellow of Trinity College, and Professor of Experimental Physics at Cambridge. He has written several Memoirs on scientific topics, among them an important

treatise on Sound. At the meetings of the British Association, of which he is a Fellow, he is always regarded an important factor, his contributions being among those that command the most serious attention.

THE PRESIDENT OF THE AMERICAN ASSOCIATION.

The portrait of Professor Lesley does not show a man of solid health, of robust physical energy, but chiefly impresses one with its mental characteristics. The head is that of a student, one who loves



PROF. J. P. LESLEY.

to investigate the sources of truth, to look into the reasons of things. The forehead is a combination of observing and reflecting elements in nearly equal proportions, we should say, and hence it is likely that he is fond of seeing for himself, and thinking for himself, so that he reaches conclusions independently, and has strong convictions of being right when he has decided. He is very much in earnest when he undertakes anything, and understands what personal responsibility and duty mean. We judge him to be a cautious, prudent man, guarded in language and conduct, circumspect and provident about matters of any importance. He is specific and definite in the

tendencies of his intellectual employment; not fond of a broad, diffused field of observation, but would focalize his attention upon one object at a time, and make his analysis thorough and exhaustive. Professor Lesley is an example of the influence of organization in directing the course of one's intellectual activity. Like a large proportion of young men, he was led by sentiment to prepare himself for a sphere that in mature life he found expedient to leave, his faculties and temperament especially adapting him to scientific studies. He was born in Philadelphia, on the 19th of September, 1819. His father was the son of a Scotchman, and a skilled mechanic deeply interested in the mental development of his children, and in the habit of drilling them in the use of language. As a boy, he studied mathematics and geography, and later was sent to the University of Pennsylvania, where he was graduated in 1838. Out of school-hours he devoted time to the study of French and German, music and painting, and afterward manifested much fondness for the classics and Oriental languages. On leaving college he was engaged in the Geological Survey of the State of Pennsylvania, under Professor H. D. Rogers, and continued at this work about two years, when thinking that he had a "call" to preach the Gospel, he entered the Princeton Theological Seminary, and having completed the course received his license from the Philadelphia Presbytery. A year of travel in Europe followed, during which he tramped through parts of France, Savoy, Switzerland, and Germany, and attended the lectures of distinguished doctors of philosophy and theology at the University of Halle. Returning home he devoted himself to ministerial services among the Germans of his State, and in 1847 became the pastor of a church in Milton, Massachusetts. But he was not settled in mind or opinion; his early geological experiences and the life abroad finally brought him to the conclusion that the pulpit was not his sphere, and he left it to devote himself to sci-

ence—Geology in particular, making Philadelphia his home.

In 1863 he was engaged to go to Europe in the interest of the Pennsylvania Railway, to examine the new Bessemer process for making steel; again in the fall of 1866 he went abroad for his health, and after travelling through Italy, acted as United States Commissioner at the opening of the Paris Exposition of 1867. It was several years before he could return to his regular work; and it has been his habit since to seek relaxation from business, when too long continued, by short trips to Europe.

In 1872 Mr. Lesley was appointed Professor of Geology and Dean of the Faculty to the newly established scientific department of the University of Pennsylvania, and in 1874 he was made chief geologist of Pennsylvania under a new act providing for a complete geological re-survey of that State. His work as a geologist has been more especially devoted to the coal formations of North America, and he is regarded as a chief authority in that department.

During the last ten years his official duties as director of the State survey, involving the publication of about seventy volumes of reports, have prevented in a great measure his personal work as a geologist, but a large number of his geological papers, as above referred to, together with various essays on philological and antiquarian subjects, will be found in the "Proceedings of the American Philosophical Society."

Professor Lesley was for several years

Secretary to the American Iron Association, and he has also for many years been Secretary and Librarian of the American Philosophical Society. Although a hard worker in science, he is a man of varied intellectual accomplishments, of a philosophical bent of mind, and interested in many of those higher questions which are agitating the mind of the age. In 1865 he gave a series of lectures before the Lowell Institute in Boston, which was afterward published (1868) under the title of "Man's Origin and Destiny as seen from the Platform of the Sciences." A new edition of this work was issued, with additional chapters, in 1881.

The book abounds in evidence of the author's independence and originality, and is thus characterized by the writer himself: "The author never contemplated anything beyond a general sketch of the present bearings of science upon the vexed question of the origin and early history of man. But the question has many subdivisions. He intended the several lectures to be separate sketches of those subdivisions of the field of discussion—mere introductions to their proper study. His views are stated, therefore, in round terms. Nothing is closely reasoned out. Much is left to the logical instinct, and more to the literary education of the reader. Reference is everywhere made to sources of information within easy reach of all. Even the style of an essay has been avoided. The book is merely a series of familiar conversations upon the current topics of interest in the scientific world."

A PROFESSION OR A TRADE.

A WRITER in the *Free Press* of Detroit says certain things in an article with the above title that are pertinent to the times, and worthy the calm reflection of our boys, and girls too, for that matter, if they will stop their wild thinking about base-ball, boating, lawn-tennis or croquet, for awhile. We quote as follows:

"But, as I told you at the outset, if you have arrived at the age of fifteen or sixteen, it is time you looked matters square in the face and had some idea of your future. If you were to answer at once, you would say that you would take a profession in preference to a trade. A profession means several years of hard study, quite a large cash outlay, and then trials

and rebuffs, to get a start in business. It is one thing to graduate as a lawyer or a doctor, and quite another to pick up clients and patients. If you have fully decided on a profession, be careful of your first move. If you have a large head, your grandmother has doubtless many times exclaimed: 'What a great lawyer this boy would make.' Don't try to make one on the size of your head. We've got any number of that class in the country now, and they can't pay their grocers' bills. If you can pull a sliver out of your finger without winking, it may be a sign that you would make a great surgeon. It may also be a sign that you are born to be a butcher.

"How will you know what to pursue? Your own feelings are the safest guide. If left to your parents and to circumstances, you may be forced into a trade or profession which you can never make a success. When you come to realize that you must make your own way in life, your particular forte will be apt to reveal itself. One of the best lawyers in Detroit was intended for the ministry; another served three years as a journalist, but all the time feeling that he was out of his element; another was forced by his father to learn the trade of harness maker. I know a machinist who at first studied medicine; of a watchmaker who tried to become a lawyer; of a carpenter who threw away three years of his life trying to become a dentist.

"After you have selected your profession or trade, what then? Strive to master it in all its details and to excel. If you become a carpenter, don't be satisfied when you can saw and plane and match. Don't be satisfied with \$2 per day. Make yourself worth \$3. Master details and push yourself from carpenter to builder. Don't imagine that a man in search of a lawyer walks down the street and stops at the first sign hanging out. It is the lawyer who has climbed above his fellows that he seeks out. If our friends are ill we want the best doctor. We want the man who has made himself the best by study and energy. The blacksmith who is content to mend old wagons will

never iron a new one. The machinist who stands at the lathe to do about so much work in ten hours need not hope to be better off. It is the men who put their heart into what they do who succeed."

It must be added that organization must be looked into, if we would know the causes of likes, preferences, and appetencies in a youth of sixteen. If the boy have the right constitution mentally for a lawyer, or teacher, or minister, or physician, he should strive to become such, and the community will be profited by his being in his place. Energy and perseverance may make a man what the world calls successful in almost any vocation, *i. e.*, give him money and social place, but they will not supply the wants of faculty or natural constitution, and make him actually skillful and competent in doing that for which Nature never designed him.

CHEAPNESS OF VEGETARIANISM.—An illustrative supper was given by a Vegetarian Society in Manchester, England, recently, which was attended by 135 persons. The food was served in two courses — soup and pudding. The soup was made of split pease, carrots, turnips, parsnips, corn flour, salt and pepper, but the composition of the pudding was not stated. The cost of the meal was one penny, or two cents, a head. An inquiry among the people who partook of it, elicited various opinions. Some liked the soup, while others preferred the pudding, but the children liked both, as shown in their requests for more, which were complied with freely. One of the speakers at the meeting which followed, stated that the supper had been provided in order to demonstrate to the poor what could be done for a small sum. Mr. Axon, who has been a vegetarian for fifteen years, commended a non-flesh diet on grounds of health, economy, and humanity. It was stated that at the Health Exhibition the Vegetarian Society would provide 6d. (12 cts.) dinners, and that in Manchester there were four flourishing vegetarian dining-rooms.

LOVE'S COMPENSATION.

SHE folded up the worn and mended frock,
 And smoothed it tenderly upon her knee ;
 Then through the soft web of a wee red sock
 She wove the bright wool, musing thoughtfully :
 " Can this be all ? The great world is so fair,
 I hunger for its green and pleasant ways ;
 A cripple prisoned in her restless chair
 Looks from her window with a wistful gaze.

" The fruits I can not reach are red and sweet,
 The paths forbidden are both green and wide ;
 O God ! there is no boon to helpless feet
 So altogether sweet as paths denied.
 Home is most fair ; bright are my household fires,
 And children are a gift without alloy ;
 But who would bound the field of their desires
 By the prim hedges of mere fireside joy ?

" I can but weave a faint thread to and fro,
 Making a frail woof in a baby's sock ;
 Into the world's sweet tumult I would go,
 At its strong gates my trembling hand would
 knock."
 Just then the children came, the father, too,
 Their eager faces lit the twilight gloom.

" Dear heart," he whispered, as he nearer drew,
 " How sweet it is within this little room !
 " God puts my strongest comfort here to draw
 When thirst is great and common wells are dry.
 Your pure desire is my unerring law ;
 Tell me, dear one, who is so safe as I ?
 Home is the pasture where my soul may feed,
 This room a paradise has grown to be ;
 And only where these patient feet shall lead
 Can it be home for these dear ones and me."

He touched with reverent hand the helpless feet,
 The children crowded close and kissed her hair,
 " Our mother is so good, and kind, and sweet,
 There's not another like her anywhere ! "
 The baby in her low bed opened wide
 The soft blue flowers of her timid eyes,
 And viewed the group about the cradle side
 With smiles of glad and innocent surprise.

The mother drew the baby to her knee
 And smiling, said : " The stars shine soft to-
 night ;
 My world is fair ; its edges sweet to me,
 And whatsoever is, dear Lord, is right ! "

REAPING THE WHIRLWIND.

CHAPTER I.

HORACE ROWLAND was a very fascinating, cultured man of the world ; of fine presence, and accustomed to winning hearts with scarcely an effort. At college he had been notorious for his love affairs, although his devotion to the fair sex had not prevented him from going out with the highest honors. His prospects at that time had been brilliant, and had he been able to follow the profession of law, for which he was by nature so well suited, he might have won not only wealth, but an honored name. Unfortunately, his college education had exhausted the small savings of his father, and he was, therefore, without the means necessary to support while engaged in further study. The importunate question of daily bread drove him, as it has many another, into the only profession for which he was fitted,—that of teaching.

At first he had intended to make this field of labor only a stepping-stone to his own advancement, but it had been easier to drift with the tide than to make a brave stand against it. His work was light, he was popular, and so he contentedly retained his position, meaning from year to year to break away, but lacking either the necessary ambition, or the *push* which is so important a factor in the American struggle for success.

Thus his 34th year found him no better off than when he was first graduated. He had made and enjoyed a good living, as the increasing corpulency of his once slender form indicated ; that was all. The world was no better for his having lived in it. Instead, it was rather the worse, for many an innocent-hearted girl had learned to distrust mankind through Horace Rowland's fickleness. In fact, his earthly nature had held the spiritual down, and intellectual powers of high order smouldered instead of

burning brightly, for want of the grit and backbone, and especially the moral principle that forms a man's character, and insures his success in life.

Rowland was not without regret that this was so, for at times he awakened to a realization of what he was, and of what he could and should have been; but, forgetting the illustrious examples afforded by history, he made the mistake of looking upon himself as too old now to amount to much; too old, in fact, to enter upon a profession, since years of preparation would be required. However, after careful consideration, casting aside the advice of a cautious father who feared to have him throw away a surety for an uncertainty, he resigned his principalship, of which he was heartily tired, and went to New York to seek employment that should offer a chance for advancement.

Fortune favored him. His pleasing address, with letters of introduction, procured an immediate opportunity to test his ability in a well-established house. Possessing really considerable aptitude for business, when once his energies were aroused, he gave such satisfaction that at the close of a trial month a fine offer was made him, which he was not slow to accept.

It was not a great while after this that he first met Margaret Silverdale. Beautiful, highly-accomplished, bright and winsome, without being in the least a flirt, she was besieged by admirers. Possibly her father's reputed wealth may have helped to increase the number of her devotees. Be that as it may, it had but little weight with Horace Rowland. Not that he was insensible to gilded charms, as a general thing, but had Miss Silverdale been as poor as she was lovely, she would have won his admiration. Always susceptible where women were concerned, there was about this young girl a reserve and modest dignity, so different from the majority of those whom he had hitherto courted, that he was immediately and sincerely attracted, and soon determined to spare no pains to win her heart.

To know Miss Silverdale was esteemed a privilege; to be on friendly terms with her an inestimable boon. Yet Horace contrived to appear to such advantage that ere long he had emerged from the state of ordinary calling acquaintance into that of friendship, spending an evening each week with Margaret, besides meeting her socially elsewhere.

To say that Margaret was attracted by him hardly explains her growing state of mind. When in his presence she was conscious of a strange magnetism, against which her spirit rebelled, and which caused her to experience an unaccountable relief when he had gone, and when, in fervent, passionate accents Horace Rowland poured out his love for her, his rich voice eager with emotion, the proud girl was moved in spite of herself, and compelled to yield credence to his words, against her judgment.

"Margaret," he said, sadly, "I see that you doubt me. You will not believe that I love you, as I have never loved any woman. Dear, you must, you shall have faith in me. On my honor" —

"No protestations, please," interrupted the clear, flute-like voice. "They would not advance your cause, Mr. Rowland. I confess I do mistrust the value of a sentiment which, according to previous statements, you have often experienced. How could I be more sure of retaining your esteem? You would deceive me, as you doubtless have others."

"Never would I deceive you. Only trust me!" pleaded the magnetic voice.

"The man who would win Margaret Silverdale's love," continued she with spirit, unheeding the interruption, "must bring her a pure, steady affection, whose continuance shall be as certain as the dawn of a new day. To lose confidence in one for whom I cared," her voice trembling, "would be far worse than death."

Her evident feeling on the subject awakened Rowland's better self. "Ah, Margaret," he murmured, "would to Heaven I *could* offer you the first love of my life. At least it is a real love, and not mere sentiment, as has so often been

the case. Beautiful women have ever inspired me with transitory interest—but you, Margaret, you have aroused a passion that will never die. It is not you alone, but your noble, exalted character, that I revere. To what heights might I not attain were your sweet influence mine! I am unworthy of you, I know, but, oh! darling, be my saving angel! Give yourself to me, and I will reward you with such a wealth of devotion as never maiden had before.”

Margaret was much affected by his eloquence and evident sincerity. All unknown to her, her heart, that had never known the passion of love, had long been responsive to Rowland's power, and had but awaited the spark which should kindle it into an unquenchable flame. Her emotion was not unnoticed. Well-versed in the moods of the opposite sex, he saw that the victory for which he had striven was at hand, and a rapturous thrill ran through his veins.

He bent his handsome face so close to hers that his warm breath fanned her cheek like a kiss. He took the little, nerveless hands in both his own, and gently, with infinite tenderness, drew the unresisting girl nearer, nearer, until her head lay pillowed on his breast. Yet even then he hesitated ere profaning those pure lips with his touch. It was but an instant.

Margaret half shrank from his hot caresses; her breath came in deep-drawn pants; her mild eyes had a frightened, yet loving expression. Native delicacy protested, while dawning passion yielded to the ardor of her lover, whose wooing would not be gainsaid.

“Madge, my little girl!” how unutterably sweet his mellow tones. “Promise to be my wife. Swear that no power on earth shall ever separate us!” straining her closer to his throbbing heart.

With trembling lips and faint voice, the promise that was to bind Margaret Silverdale like fetters of iron was given, and ratified by a kiss—a kiss voluntarily imprinted by that innocent mouth upon the white forehead of the man who might

become the arbiter of her life's weal or woe.

CHAPTER II.

To every thoughtful maiden, even in the flush of a first love, when the heart swiftly unfolds as the dainty petals of a rosebud open to the warmth of the June sunshine, there comes a time of hesitation and of doubt. Endowed as her lover is by the glamour of passion, with all high and endearing qualities, yet involuntarily she questions of herself, Will the future be as full of serene content as the peaceful girlhood whose threshold has just been crossed? The present is too perfect, too blessed to last, though not for worlds would she forego its sweetness—no! though untold torture were its penalty. “For every ounce of pleasure, a pound of pain.” Cruel, unfailing, unalterable law.

To Margaret Silverdale came some such reflections. Was Horace Rowland calculated to insure her happiness? Ought she not even now to give him up; to cast out this consuming ecstasy which burns in her veins, and made of existence a lotos dream? But her will was powerless. The spell of Rowland's magnetism held her fast. She reproached herself for her momentary hesitation. Better a year of life with *his* love than ages without him.

Always a favored child, Mr. Silverdale had been unable to refuse his pet, when, with arms twined around the stern old man's neck, she had entreated his consent. A shrewd reader of character, however, the father had given it under protest; approve he could not. But Mrs. Silverdale had been easily won, for upon the woman, the peculiar charm of Rowland's temperament was not without its effect. True, he laid himself out to please, for what would he not have done for the sake of his adored Margaret? In her presence he felt himself a nobler man, capable of greater things, and in this lay her peculiar charm. To render himself more worthy of that pure nature

was his constant endeavor. Since the days of boyhood, he had not led so upright a life as now. Let the past alone. What need to resurrect its skeletons? Though at times their ghosts rose to trouble him,—to threaten certain punishment. Away with useless remorse! The present was his. Since he had known Margaret Silverdale, his record had been clean, and he could meet her clear eyes unshrinkingly.

So the peaceful days and weeks glided by, freighted with delicious hours, to live over which in memory was even sweeter than their reality. Priceless, precious hours to both; for Margaret had long since ceased to wonder or to doubt. With such women, love is not a by-play, 'tis their whole existence. Margaret's very life seemed bound up in that of her lover, her identity almost lost in his.

But such exquisite happiness is seldom of long continuance. If it were, this earth would be too near an Eden. At the breakfast-table one dull winter morning the carrier's familiar ring gave no warning of its unfortunate mission. The greatest blows often fall with the rapidity and unexpectedness of the lightning bolt.

Mr. Silverdale carelessly opened the letter that was handed him, glanced at its contents, then read it again more thoroughly, while his brows contracted in an ominous frown, and his face grew hard and set. "Scoundrel!" escaped his shut teeth. Swallowing his coffee at a gulp, he hastily arose from the table. "Come to me when you have finished, Margaret," he said, as he left the room.

Pale and startled, Margaret looked appealingly at her mother, whose own face was full of apprehension.

"Yes, dear," said Mrs. Silverdale, answering the mute request, and, rising together they sought the library, where it was Mr. Silverdale's custom to enjoy a morning hour while perusing the daily papers. But they did not find him thus engaged. With heavy tread he paced the little room, his countenance so expressive of indignation and contemptuous loath-

ing, that those who beheld never forgot the unwonted sight.

"Read that!" he said, grimly, pointing to the open letter that lay upon the table.

Instinctively Margaret felt that Rowland was concerned, and turned sick at heart, with difficulty preserving a semblance of composure. The words swam before her eyes, her brain reeled, she grew white as death, but no sound escaped her. There was in this young girl the stuff of which martyrs are made.

The letter, although anonymous, carried conviction, as with a terrible sinking of the heart, poor Margaret realized. It was a complete *exposé* of Horace Rowland's past, that past which he had hidden from Margaret and her family, and which he would fain have buried in oblivion. Though the plain words of the writer gave the worst possible coloring to everything, yet the grains of truth were large enough to convict any man, as Mrs. Silverdale at once felt. But however dishonorable had been Rowland's dealings with women, hitherto, she did him the justice to acknowledge that toward her child his conduct had ever been unexceptionable. Moreover, she liked the young man too well not to dare her husband's displeasure by venturing to assert as much.

"Were he a saint, that would not wash out his previous transgressions," harshly replied the old gentleman, to whom morality was godliness. "As he has sowed, he must reap. Never let me hear his name again. My poor child," his voice softening, "this is hard on you, but," proudly, "my daughter will be equal to the emergency, terrible as it is."

All the beautiful bloom had faded from the sweet face. Its rigidity was painful to witness. The shock had been so sudden, so complete, that it had stunned the miserable girl.

"Poor little Madgie!—poor lamb!" murmured her father, stroking the shining hair. But his words brought no comfort. The aching eyes were dry, the pallid lips dumb.

"To think that a child of mine should have had such an escape!" grinding his teeth in rage.

Mrs. Silverdale was softly crying.

"Such a perfect gentleman!" she murmured. "Who would have thought it possible?"

"A whited sepulchre," was the grim response. "Thank Heaven, Margaret is not already his wife! Understand," added her father, "with my consent, you never see that man again."

Trained from earliest childhood in habits of respectful obedience, Margaret never dreamed of defying her father's authority, though her heart broke.

"I may write, father," she pleaded faintly, "just to tell him that I forgive?"

Her tones were strained and unnatural and moved the stern old man's pity.

"You are not equal to the task, Madge—let me write for you."

She shook her head sadly.

"Very well. Set about it, then; for he never steps foot in this house again."

"Are you not a little unjust, Calvin?" remonstrated his wife. "Ought you not at least to give him the chance to say a word in his own defence?—the veriest criminal has that privilege."

"There can be no answer to such charges as these," answered Mr. Silverdale, tapping the letter emphatically. "Either they are wholesale fabrications, or Horace Rowland is not fit to associate with decent women. But I will do him the justice to make inquiries of the parties named herein. If they can establish his innocence, then I will gladly retract. Madge shall be free to wed him if she chooses."

"Thank you, husband. I felt sure that your wrath would be tempered with mercy—did not you, Margaret?"

But there was no reply. Immediately upon receiving permission to write, she had stolen away to her own room, to which not even that dear mother was admitted for many hours.

Alone the unhappy girl fought the battle, striving vainly to conquer the love which for months had been the pivot

around which her life had revolved, and to yield submissively to her father's will. Rather would she have seen her idol dead at her feet, than have lost him through his own unworthiness. Yet she could not crush out her love for him. Whatever his past, she cared not; the present only concerned her. Won against the promptings of her better self, her surrender had been complete. She had poured out the rich treasure of her affection with unstinting hand. Horace had been the very model of all that was honorable and deserving of esteem. Indeed, he had appeared to his best advantage when with Margaret, for she called forth all his good qualities of heart and mind, while the lower ones were kept in subjection. Her influence had been elevating, and had made him appear the man he was by nature intended to be. Every fibre of her being twined around him. To tear up her love was like cutting the root from a young rose-bush, and then bidding it live on and blossom just the same.

CHAPTER III.

"A great, silent, moving misery puts a new stamp on us in an hour or a moment,—as sharp an impression as if it had taken half a lifetime to engrave it."

"My little white dove," thought Horace Rowland, as humming a love strain he sprang blithely up the steps of his boarding-house, in his hand a letter addressed in Margaret's delicate chirography, which he had found lying on the hall table. It was seldom she wrote him—they saw each other so often—but no suspicion of its terrible contents disturbed him, as with a reverent gesture he raised the precious missive to his lips, then glanced around as if half ashamed of his self-betrayal, though he knew himself unobserved. He was alone in his own comfortably furnished room, and only mute witnesses met his eye.

Margaret's photograph, handsomely framed, smiled at him from the mantel, and he paused a moment to gaze tenderly into the serene eyes. "My little saint!" he murmured, half aloud.

Throwing himself into an easy-chair, where his eyes could continually revert to the pictured face, he opened the fatal letter. It was not long—two little pages. He read it to the very end.

"My God!" he groaned, as the paper fell from his fingers, and he buried his face in his hands. "Margaret, oh, Margaret, do not forsake me so! You do not know how hard I have been trying for your dear sake."

Once more he took up the letter:

"Oh, Horace, I never loved you more than now, when I am writing to you for the last time. Some one has sent my father an anonymous epistle, revealing *all*, and, though he has laid no positive commands upon me, I know what he expects. Do not make any effort to see me, please, for it would be useless. But, Horace, though we may never meet again this side of eternity, I shall not cease to love you and to remember you in my prayers. While life lasts, I will be true to you. My heart is wedded to thine in bonds that can not be broken. Whatever you *have* been, now, at least, you are a noble, upright man, deserving of any girl's regard.

"I do not regret, therefore, having given my heart to you. Oh, my darling! will you not try—if you really care for me, as you have so many, many times assured me—will you not try, for my sake, to *continue* to lead a blameless life? Perhaps, if you do, in time my father may relent and give his blessing to our union. Horace, my only love, will you not do this? I have the most perfect faith in you. I will wait years, if need be. I will call no other man husband. The promise I made you on our betrothal night shall be held sacred. Dearest, I pray for you, and love you with my whole heart, even while writing the saddest of all words—farewell.

"Thine only and forever,

"MADGE."

The silence in the room grew oppressive. At length, Rowland sprang up, pushing his chair back with an oath.

"The devil take me," he muttered savagely, "for all I care. I have struggled for almost a year to be worthy of her, and now in an instant my hopes are irretrievably dashed to the ground."

His whole countenance was transformed. Impotent rage and mad despair gave him the aspect of a demon, or a tiger brought to bay. He looked capable of any desperate deed. Of a sudden his eye fell on the sweet, pictured face, and he burst into convulsive sobs.

"That I should lose you now, Madge! My little Madge!"

The remembrance of important business recalled his wandering senses, and making a hasty toilet, he rushed out of the house.

Happily, his mood had temporarily softened. The letter lay close to his heart, together with a small picture of Margaret, which he always carried. But the result of the blow he had received, who could foretell? There were strong elements both for good and evil warring in this strange nature. Which should gain the victory?

CHAPTER IV.

SIX years have passed over Margaret Silverdale, and as she sits in the gloaming, she seems at first barely as many days older than when she parted from her lover. But the agony of that parting had made a great change in the hitherto blithe, careless, joyous girl.

Something of the anguish which was her portion may be read in the firmer lines of the exquisite mouth, the chastened, yearning expression of the great, pathetic eyes, and a few silvery hairs already show amid the abundant tresses which crown her shapely head. The discipline of sorrow has but perfected the sterling character, and rendered her yet more lovable and more noble.

In all these years she has never heard from Horace Rowland. Has she forgotten him?

Her slender fingers unclasp, and with those of one hand she absently smooths

the mourning-dress she wears. "Poor father!" A mist blurs the snow-clad scene, and her tears fall silently.

"Daughter, seeing that your happiness depends upon it, I withdraw my opposition. If, after I am gone, you find that Horace Rowland has led an upright life since you last met—or even if you still feel assured of his power to do so, under the incentive of your love, I say, with all my heart, Bless you, dearest Margaret, beloved child!"

It is of these, almost her father's last words, that Margaret is thinking now, as every day since they were first uttered. She has been a dutiful, affectionate daughter, tenderly ministering during weary months of failing health to the stern but fond parent, who first separated her from the only man who ever had power to stir her pulses, or inspire her with the faintest spark of responsive emotion.

Her love had been too recklessly lavished to admit of its recall. At twenty-eight she loves Rowland still, as madly, as unchangingly as when she first acknowledged him lord of her heart.

The faults of his youth are condoned; she imagines him upright, honorable, a man of whose regard any woman might be justly proud. So, as she sits alone, memory reverts to that blessed time when she and Horace dreamed and planned of a fair future together. She can almost feel the warm clasp of his hand, the soft touch of his lips, can almost see the familiar figure seated beside her, as in the olden days, and a cry of unutterable longing breaks forth from her starving heart, "Oh, my love! My own dear love! Come to me! Come!"

The deepening twilight shadows enfold the graceful figure pityingly. A footstep is heard along the hall, and Margaret starts up, blushing like a girl, as if it might be the embodied ghost of her thoughts.

"Alone in the dark, Madge?" says a tenderly chiding voice. "It is not good for you to mope so. You must go out into the fresh air more."

"To-morrow, mamma dear," is the quiet answer.

"By the veriest chance," says Mrs. Silverdale, sinking into a luxurious chair before the glowing fire, and extending her delicate fingers to its welcome blaze, "I heard to-day of Horace Rowland."

Margaret is standing, so that her face can not be seen, but the anxious mother feels the little hand resting upon her shoulder tremble ever so slightly.

"He is in town at present," she continues.

"Yes?" says Margaret, softly. For her life she could not have uttered another word.

"If you desire it, Madge, I will drop him a line, inviting him, for the sake of past friendship, to call upon us, at the same time casually mentioning your father's death."

For all answer, Margaret stoops, and bestows upon her mother a swift kiss, then glides from the room. The touch of her burning cheek has betrayed her. Mrs. Silverdale sighs. "Six years!" she murmurs. "A great while in a man's busy life. I dread the meeting. Well, better certainty than suspense. Let me set about my task at once."

Horace Rowland has not changed for the better since we last saw him. The heavy, sensual lines of the face have deepened, and a cynical expression is quick to gleam in the cold, skeptical eyes. His form is stouter, and the brisk motions which at thirty-four made him appear considerably younger, have given place to a comfortable, middle-aged ease of manner, which is seldom disturbed. Selfishly, indolently good-natured, because it is too much trouble to be otherwise, he glides through life skimming its sweets, rarely caring to look below the surface, content with himself and the world.

He holds in his hand a note, which he has just finished reading, and for the moment something like regret shines in his face, as from his breast-pocket he draws forth a worn photograph, and gazes at it long and earnestly.

"She was the sweetest girl I ever

knew!" he murmurs. "My cursed fate separated us! Reparation has come, I fear, too late."

With a sigh he carefully replaces the picture. "But I will go. I should like just to see my little Madge once more," an unwonted tenderness in his eyes. Soon he is on his way to the address given by Mrs. Silverdale.

Margaret is alone when he enters. The sweeping folds of her soft black robe add to the slenderness of the tall figure, and bring out in strong relief the milk-white throat and rounded, dimpled chin. The abundant, beautiful, glistening hair, massed low on her neck, is her only adornment.

Rising, she extends a slim, cool hand in greeting. Her pulses are beating madly; she is longing to throw her arms around him, and give vent to the repressed, intense emotion of her aching heart. But her father's dying words, echoing in her ears, restrain her. "Is Horace true gold? How has he stood the crucial test?" Eagerly, yet timidly, she raises her glorious eyes to meet those once so dear.

Rowland has manhood enough left to color beneath that searching scrutiny. "Madge!" he says. 'Tis the old, magnetic, well-remembered voice, but its pleading tones move her not. "Madge!" opening his arms as though he fain would draw her within their embrace.

But Margaret shrinks from him. The glamour of youth has fled. The keen insight of the woman has discerned what was hidden from the girl. Base alloy! is written ineffaceably in the lines of Rowland's still handsome face. The man stands self-revealed at last in his true personality, unworthy even to touch her hand.

He feels it as keenly as she. Excuses rise to the ready lips. "If only you had loved me better all those years ago," he says, reproachfully.

"Hush!" she answers with calm reproof. "The spirit there is in us worketh out its own salvation. My influence would not have been powerful enough to

save you from yourself. Had your noble aspirations been more than idle dreamings you would not now be left lamenting."

The truth of her words strikes home. "Oh, Madge!" he says, "you never loved me. You can not imagine what your loss was to me."

"Can I not?" mournfully. "At least I, too, have lost an ideal."

"Madge!" he cries, startled into an agony of remorse. "Oh, my angel," kneeling at her feet, "take me back to your heart again, and your love shall yet make of me what you will. I will devote my life to the realization of your hopes."

A sad smile hovered for an instant about the mobile mouth. "Dared she try the experiment?" Her heart beat wildly at the bare idea. Then she grew calmer. Reason refused to hearken to the promptings of a love not yet ashes.

"Rise, Mr. Rowland," she says, with quiet firmness. "Do not deceive yourself. Do we not both see that it is too late?"

He groaned bitterly. Life might yet have offered him so much. Beautiful, but cold as a statue, Margaret looked down upon him, her fair eyes dim with repressed grief; the shadow of a dead hope upon her still, white face.

In his secret heart the man knew she spoke the truth. The habits of years, chains of his own riveting, held him fast. He lacked the moral courage to break loose. It was now too late.

ADA E. H.

A HAPPY HOME.—"Six things," says Hamilton, "are requisite to create a happy home. Integrity must be the architect, and tidiness the upholsterer. It must be warmed by affection, and lighted with cheerfulness, and industry must be the ventilator, renewing the atmosphere, and bringing in fresh salubrity day by day; while, over all, as a protecting glory and canopy, nothing will suffice except the blessing of God."

A RARE OLD HOUSE.

IN "Picturesque Europe" is a description of the house in which the celebrated chemist and philosopher Leibnitz lived. It is interesting as a work of the artist and craftsman of two hundred years ago, as well as showing how a man of leading thought was content to surround himself with the attainable comforts and elegancies of his day.

One of the most complete specimens of the dwelling-houses of the seventeenth century is the house of the celebrated philosopher, Leibnitz, in the Schmiede Gasse. After four large stories begins the gable, which rises by five steps, each with a gradually decreasing number of windows, the whole carved most richly in string-course, cornice and mullion, and surmounted by the statue of a helmeted warrior. A broad gateway leads into the courtyard, and at the corner of the cross-street rises the *erker*, or oriel, as we should call it, still more richly decorated than the house itself. This is in three stories, and affords a convenient resting-place for the ladies of the family, from which they may observe the doings of their neighbors. Leibnitz was once a mighty name in Hanover and in the world. He made philosophy popular with the powers that be. Perhaps he would have more fame among posterity if he had less in his lifetime. Under his influence Hanover became a place of gathering for famous wits, and foreshadowed the splendor of Weimar in the succeeding age. Very different to the narrow lanes of the old town are the broad spaces of the Neustadt, on the left bank of the river. Here the market is a broad space, with trees and a fountain in the centre, and the church is much more modern. In still later times Hanover has not been able to resist the general movement by which all towns develop to the southwest. The railway station is the centre of a new and more splendid quarter, full of the latest German, Gothic and Renaissance—the product of the

pupils of the Polytechnic School. The town would, of course, be incomplete without its Residence-Castle, the scene of so many vicissitudes. Here is an orangery and a riding-school, an armory and a collection of antiquities, and under the hearth-stone of the chimney-place in the old guard-room lie the remains of Köningsmark. This hall is now used for great receptions, and is gorgeous beyond expectation. On one side three consoles of massive silver occupy the spaces between the window, while above them rise three mirrors of enormous height, framed also in silver, and in which the lights from the three chandeliers of silver hanging from the ceiling are reflected. Here is the reception on the first of the year, and the snowy silver gleams and glitters in the blaze of a thousand lights. The plate-room in Hanover was the finest in Europe. You went from chamber to chamber through absolute masses of silver and gold, wrought into a thousand curious shapes and forms. There was ancient plate and modern plate; there are candelabra reaching to the ceilings, and golden basins spreading over the floors; knights in armor tilting with burnished lances under frosted trees; and huge cisterns wherein you might drown a couple of Clarences. Only a walk from the town is Herrenhausen, the favorite residence of the later monarchs. The palace is surrounded with Dutch gardens and canals; a fountain in the middle of the garden springs 150 feet into the air, and, in very still weather, can be forced artificially to nearly double the height.

FROM A JAPANESE SERMON.—Miss Bird, a traveller in Japan, prepared a sermon preached in that country by a priest of the country, for an English paper, that shows how similar the domestic life of the Mongolian, in its mental phases at least, is to the home life of the Caucasian. The text, taken from the Chinese classics,

was: "That which is evil, be it but small, do it not: that which is good, be it but small, fail not to do." The preacher, very much in the same strain as a Christian clergyman would do on the same subject, showed how much evil can result from very small beginnings.

"Take, as an example," said he, "the way a husband calls his wife. Should he summon her with a pleasant 'Here, good wife,' she will reply with a soft 'Ay, ay.'"

"Now take an opposite case.

"Husband—What are you pottering about there? Just stir about, will you? These short days too!

"Wife—I know the days are short, and that is just it. If any one comes to the door I have to answer, and the washing to do besides, and I haven't five or six hands to do it, have I?

"Husband—Are you going to give your husband any of your ill chat?

"Wife—Well, what are you doing hugging that fire-box all day, instead of lending me a helping hand now and then?

"Husband—What's that? Now, look here, I'm not an ox, I'll have you know. You are not going to put your rope through my nose and lead me all over the place."

And so they go on. He, a fine strapping young fellow, and she a sweet-looking young girl, now red, now green with passion. "Such a hubbub," the preacher says, "all for want of a little care over the small politeness of daily life."

Human nature seems very like the world over, and one feels as if this quarrelling was a sadly faithful copy of what one might hear in an American cottage where things had gone wrong, and the Christian maxim had been forgotten: "Bear ye one another's burdens."

MR. "I CAN'T."

THERE'S a surly old tramp who goes prowling about,

He is seen ev'rywhere, so you'd better look out!
His face is all wrinkles from forehead to chin,
His lips stick right out, and his eyes go right in.

He hates all the children, and chuckles with joy
To hear people say, "That's a bad girl or boy!"
And if he can make you a drone or a dunce,
He'll sneak in and claim your acquaintance at once.

He steals in the school-room and stands at your back,

Too glad if the teacher should give you a "whack";
And when the hard words you would spell, he will try

To make you forget, or to snivel and cry.

When doing examples that puzzle the brain,
He'll jog you and whisper, "There, don't try again!
Just mix it all up, and then rub it all out,
And don't say a word, but look sulky and pout."

Beneath the piano he'll hide out of sight,
To tease you when there is his greatest delight;
He'll catch hold your fingers and blindfold your eyes,
And turn all the notes into great dragon flies.

Beware of this tramp who creeps in like a mouse,
And stealthily wanders all over the house;
He's lazy and shiftless, unlike the wise ant,
His name you must know it, is Mr. "I Can't."

SARAH E. DONMALL.

STUDY TO BE COURTEOUS.

"COURTESY costs nothing," is one of the adages that are not true. It was originally uttered by one wholly ignorant of human nature, and it is repeated by those only who are ignorant or thoughtless. The author was probably a man of such exceeding good-nature that it was perfectly natural for him to be courteous to all with whom he came in contact,

and judging others by himself he wondered why they were not equally mild-mannered and affable. This was a great mistake. We human beings, though all classified under the genus man, vary as greatly in our mental make-up as we differ in physical appearance. That people differ in talent for music or poetry or oratory is a well-recognized fact; but

these differences are accounted for on phrenological grounds. It is not generally understood to be true, but nevertheless it is true, that the ability to be suave and pleasant—in a word, courteous—is as much a talent depending upon organization as the ability to sing or to write poetry or invent new mechanical machines. Were all endowed with the talent for courtesy in an eminent degree, the injunction so often repeated, “be courteous,” would become obsolete, not being needed; for knowing the value of this social virtue, as all do, it would be universally practiced. To many, however, courtesy is a difficult art, while it is almost impossible to others. With a few favorites of fortune it is as natural as to breathe. Fortunately for the former classes, the persistent practice of a virtue or talent increases power of the faculty upon which it depends, and renders each repetition of its use or exercise easier. This is eminently true of courtesy. However surly you may be by nature, it is possible for you to display a courteous manner if you put forth the proper effort, and not only possible, but a duty you owe yourself and your fellows. Courtesy lights up the lives of the recipients and warms the heart and softens the character of him who conforms to its rules; besides, it is so much stock in trade, and a valuable stock, to those who are in any way dependent on others for favors of any sort. A talent for making folks feel easy and comfortable in his presence is of more value to the politician or professional man than any other mental endowment or acquired qualification. We do not mention this with a view to offering this base motive for being courteous, but simply to illustrate our theory. We have already presented the higher reasons for the persistent practice of courtesy in our intercourse with each other. T. A. BLAND, M.D.

DRESS REFORM.—Certain ladies of prominence in English society have taken an earnest interest in dress reform, and have already designed patterns of cos-

tume that are considered more healthful and convenient than the old fashions, and at the same time are far from ungraceful. Two of these ladies are visiting America, and this is what a newspaper man reports of them:

“The elder lady is Mrs. E. M. King, Secretary of the Rational Dress Association of Great Britain. The younger lady, handsome and wholesome, is Miss Glen, Mrs. King's friend and confidential assistant. Mrs. King said: ‘I am wearing the rational dress. I always wear it, not only as a point of duty, but for pleasure. It is comfortable, healthful, manageable, and cool or warm, as one may wish. These are trousers,’ and she drew up her skirt some inches, ‘made just like your own, except the plaiting, and I always will maintain infinitely more decent than petticoats. In the wind petticoats are not coverings; in the mud petticoats drabble or have to be carried in the hand. They cause colds and diseases innumerable. I don't believe in imitating men's garments. This dress is distinctively woman's dress. We don't invade man's domain, but merely assert the right of women to break through absurd traditions, set dress-makers at defiance, and make themselves comfortable. The rational dress movement is widely supported in England.’

“Miss Glen says: ‘The reformers are split into two sections on the trousers question. Lady Harberton's party want to wear their trousers very wide—a couple of yards around each leg. There is no particular advantage in that. What are the advantages of this? Why, I am a living example of them. Eighteen months ago, though I did not wear an array of heavy bugle trimmings and superfluous gewgaws, my clothes weighed from twelve to fourteen pounds. Now all that I have on weighs but four and one-half pounds. Dressmakers are our worst enemies, but husbands and fathers can be counted on to neutralize their hostility in time. Long doctors' bills do not grow for families where the ladies wear our garments.’”



THE POWER OF TEMPERANCE EDUCATION.

WE sometimes hear the remark that *Education will not prevent intemperance*. In some respects this is true. If an educated man drinks, it will make him drunk quite as surely as if he was uneducated.

As a rule, the ignorant classes are more addicted to drink than the educated. If we could marshal the drinkers and the non-drinkers in two grand processions, we should soon see the truth of that statement. This also harmonizes as it should with the fact that drink does not promote education. If further proof in this line is needed, we may quote the havoc wrought by alcoholic drinks among ignorant savages. Whole tribes of North American Indians have been swept out of existence by this cause. A similar result has occurred in the Sandwich Islands, New Zealand, and in some parts of Africa and Australia. With the individual, it is true that a knowledge of Latin and Greek, cube root, and conic sections will not avail to prevent the formation of the drink habit, provided the subject thinks the drink is good for him. To many this will seem a very absurd proviso, because, as they assert, "everybody knows it is bad, and he has only to look around him to see that." Yes, but the difficulty is, he looks around him to see how it hurts *other people*; he looks within to see how it hurts *himself*. And just there his judgment is at fault, for he judges by his feelings through his

nerves, and his nerves have been tampered with. Alcohol is a nerve poison, and the nerves that have been paralyzed by it do not report its action correctly, and many of the smaller nerves do not report at all. Hence there is *less* feeling of any kind, not because there is less cause for it, but because the drinker has dulled his own ability to perceive the cause. Here is the fact that alcohol is a deceiver, a mocker, and "he that is deceived thereby is not wise." This is the secret of its power on the drinker, and it is really wonderful to see how it covers up its tracks.

Not long since a teacher came to me for an hour's conversation with the express purpose of showing that the habitual use of wine was safe and desirable under certain circumstances. She had taken it ten years, and it had never hurt her, nor had she become enslaved by it; she could give it up at any time, etc., etc. I answered her, that the nature of the stuff was always the same, and therefore it must hurt her, and that it was not safe to take it in that way, with proofs. All I could get from her was a repetition of her assurances, with the suggestion that she might be differently constituted from other people. Evidently she had heard the siren speech, "Thou shalt not surely die."

As for looking around for "proof," if mere seeing could carry conviction, we should get the most effective temperance

workers out of the lower city slums, and we should not so often have case after case in the same family, who go down to ruin one after another through the drink. All those people, like the teacher just mentioned, however well educated they may be in other respects, need to be taught that alcohol is a nerve and brain paralyzer, and their feelings, having been tampered with, are not to be trusted. They must have a *Temperance Education*, including a knowledge of the nature and effects of all kinds of intoxicants, and the reasons for avoiding their use.

Some ignore the importance of Temperance Science, because, as they say, it is the Gospel that saves men from intemperance. We cordially acknowledge the importance of the religious element. It furnishes the impelling power which makes us work against intemperance, but it must work in harmony with the facts of Temperance Science, which is simply God's law, written in our bodies for our guidance. Religion does not prevent a man from taking alcoholic liquors, if he believes them to be good for him, and we can ill afford to unchristianize all the good people who before the present Temperance Reformation took more or less of what they believed to be "a good creature of God." If there are any Christians now in this country who take the drink innocently, with or without a doctor's prescription, it is our privilege to reduce their number by showing them that the drink hurts them every time they take it. Science thus enables us to know what is right, and religion makes us do as well as we know, and will also induce others to do the same. Religion makes us follow the lead of St. Paul on this very head and "keep the body under," denying ourselves of all hurtful indulgences to enable us to give our best possible service to God, ourselves, and our fellow-men.

In order to get at this Temperance Education, *we must* begin with the A, B, C,—A, Alcohol; B, Beer; C, Cider,—and so on through the *entire alphabet*. Reciting the A, B, C, does not make the

scholar, either in literature or science. We must know what alcohol is, what it does to those who take it, its nature as a poison, its mischief as a medicine, its terrible transmitted influences, and above all, the necessity of being free from its presence in the organism, in order to be able to judge correctly of its immediate effects. It is also desirable to be familiar with the various excuses made for its use, and be ready to refute them and work against them. All this includes theoretical and practical Temperance Education.

This is a science which requires time and ability to master it, but we ought not to shrink from any such effort to get rid of an overmastering evil like the drink habit. Educational work is always slow and laborious, but then it is wondrously elevating, and we, as Christians, as philanthropists, and as *American citizens*, do especially desire the elevation of the individual.

Ignorant and degraded people can not take in all at once the facts of Temperance Science, nor be moved by the considerations of philanthropy which lie at the foundation of Temperance effort; but they can attain them by degrees, and with many this sort of teaching has proved the starting-point both to temporal and to superior mental activity. Witness the case of T. A. Smith, a common laborer in London, awakened to intellectual activity by the statements of one of the earliest Temperance workers to the effect that labor generally could be performed better without beer than with it. He subsequently became a chemist of some note, and a scientific temperance worker.

There is very little doubt that if Temperance Science be carefully studied and generally diffused, it would open the way for such an intellectual quickening of the human race as the world has never yet seen, and it will be accompanied by the most marvellous religious and material prosperity, while destitution and vagabondage would gradually follow the drink. In view of such desirable results, it is on the highest moment that these methods of work be recognized and encouraged.

While it is right and most praiseworthy to put away temptation, by closing the saloons and inscribing upon the statute books laws worthy of the approval of the great Lawgiver, we should even labor more diligently to realize the consummation of the great Divine plan recorded in Jeremiah xxxi. 33, 34: "I will put my law in their inward parts, and write it in their hearts, and will be their God, and they shall be my people."

When this is the case, when people both have the law and obey it in letter and in spirit because they love it, for "love is the fulfilling of the law," we shall realize what the venerable Dr. Mark Hopkins said at the late anniversary of the National Temperance Society, of which he is President. "That is the trial of the American people—the struggle between the higher and the lower self. And when the people are so educated that they can be lifted up to adopt the high principle of laying their bodies as a living sacrifice upon the altar of God, there will be no need of laws." To all this we often get the reply, "But the law itself is educatory." That may be true to some extent, but we never hear that plea urged about other laws. No one urges that the existence, or even the execution of our best criminal laws, affords the shadow of a reason why we should not teach the ten commandments with all the variations to both children and adults. The best temperance laws do not teach the reasons *why* we should abstain from alcoholic liquors. They say only that these shall not be made nor sold, excepting under certain restrictions which are aimed against their use as beverages. They do not and can not touch the constantly increasing practice followed even in Vine-land, of making and using wine from your own grapes and other fruit. And they do not even in Maine prevent their free prescription and *medicinal* use, which is enough of itself to bring all the flood of evils back again in the course of time. This medical prescription and recommendation has been by far the most efficient aid in flooding us with beer. It first made the drinking world familiar with

distilled liquors. It has introduced to us chloral and koumiss, and even now it is spreading the use of opium with frightful rapidity. Nothing can save us from these evils but careful, thorough, and general acquaintance with the facts of Temperance Science. For want of this our workers are few, our means are defective, our claims are considered superficial, and they do not secure the attention of the people as their importance demands.

And this is not for want of facts. The rottenness and foulness of beer, for example, have long been capable of proof. Look at the magnificent array of testimonies collected by "Nasby," in the five-cent pamphlet, "Beer and the Body," showing the mischiefs of the beer. If the people generally had received a Temperance Education of the kind here imparted, beer could never have gained its present commanding position in this country.

This subject is worthy of the attention of the best Temperance workers. We can not afford to put it off entirely upon school teachers and Sunday-school teachers, who as classes do not make it a specialty. If we are going to depend on the Temperance Schools, then we must go into them and make them a success in this line.

Many of our noble women who take hold of this branch of work intelligently, because they see its power, are left to run the school alone without the teachers that every superintendent would think essential to the success of even the smallest Sunday-school.

We have Bible science on other lines of thought glorified by the studies, the lectures, the text-books, and other helps, which make it so attractive and successful in these later days. And now we want the commanding mind, the scientific skill, and the enthusiastic lecture to popularize the wonderful and fascinating truths of Temperance Science by the aid of brilliant experiments, ingenious object lessons, and the thousand and one devices of the modern education. Then we shall begin to realize the great power that lies in true Temperance Education.

JULIA COLMAN.

NOTES ON RHEUMATISM.

ON the approach of winter, he who has the rheumatic diathesis must take precautions against dampness and cold, if he would not experience an outbreak of this painful disease in one of its many phases. It is termed a winter disease, because the inclement transitions of winter, with their frosts, draughts, and dampness, are specially instrumental in producing the tissue changes or inflammatory conditions conducive to the development of rheumatism.

The disease, however, can not be said to arise from exposure to the inclemencies peculiar to the cold season of the year, for, strictly considered, it exists in the organism itself already in a germinal or latent state, requiring only certain effects of weather to quicken it into manifest activity. Its causes are to be found in the original constitution, primarily, and in the habits of the person, secondarily. One may inherit a predisposition to it from either father or mother, in which case improper dietetic habits and irregularities in other respects will accelerate its appearance in the acute form. Exposure to dampness is the most frequent immediate cause of an attack. One is out in a shower without sufficient protection, and his clothing is wetted, and he continues to wear the clothing for some time afterward, and during that time is for a part of it in a state of rest. The next day he is troubled by a peculiar heaviness and fulness of the head, with a disagreeable chilliness, and perhaps a dull headache. Next day appears the inflammatory stage, when there are hot flashes with alternations of creeping chills, a quickness and fulness of the pulse, and symptoms of congestion in some of the organs. The lymphatic vessels are overcharged, and there is a sense of fatigue, and perhaps ache in the spinal region, and one's feet "draw" as he walks.

Not only for the rheumatically disposed, but for all, it should be a principle of action when the garments have been

wet much to exchange them as speedily as possible for dry ones. We think, too, that it is an excellent preventive measure for one to wear woolen flannel next the skin, because when a person is in a perspiration, muslin or linen or silk becomes damp and cold the instant a current of air strikes it, even in mid-summer, which is not the case when woolen fabric is worn next the skin. The open meshes and loose fibres of a woolen garment absorb the moisture of the skin, and permit it to pass off readily by evaporation. And thus a woolen garment does not become saturated like the closely woven shirt of cotton or linen or silk.

The more common form of rheumatism is known as *articular*, and affects the joints, while general rheumatism is distributed in the bones, muscles, and tendons. All kinds of rheumatism affect the osseous surfaces chiefly, and indicate a failure on the part of nature to supply the fluids essential to their proper exercise, or as a practical observer says: "In a healthy condition of the parts, nature is constantly throwing out a lubricating oil, which keeps the joints in a perfectly smooth and easy-working condition."

In a state of inflammation the heat of the tissues dries up the lubricating fluid, and one consequence is the sharp pain that follows the slightest movement of an affected joint. The blood supplies the fluid essential to the integrity of the articulating surfaces; hence there is a morbid change in the state of the blood when it fails to respond to their needs, and the treatment that is given a rheumatic patient must include a proper consideration of the blood, otherwise it is likely to fail.

An examination of the blood in acute cases, or what is often termed "rheumatic fever," reveals an excess of acid, the urine and the exudations generally have a sour odor, and associated with this blood condition is its tendency to the formation of fibrine, which is deposited in certain inflamed parts. As all the

fibrous membranes are subject to an inflammatory determination in acute rheumatism, there may be deposits of fibrine upon the valves of the heart, upon the pericardium or membrane investing the heart, or upon the pleura or membrane surrounding the lungs, and very serious complications then ensue. The practice of most physicians is to administer alkaline medicines in rheumatism, from the belief that the acid state of the blood "indicates" the use of alkalis in the treatment. So we find such prescriptions as bicarbonate of potash, salicylic acid, chloride of iron, Rochelle salts, iodide of potash, among those highly esteemed.

We are of opinion, however, that hygienic measures are attended with the best results of speedy relief from pain and ultimate recovery. Water, either hot or cold, according to which is the more acceptable in a given case, should be applied to the diseased parts, by bathing, douches, sprays, fomentations, and bandages. Care of course should be taken by the physician or nurse to administer the treatment in accordance with the indications. No ignoramus or bungler should experiment with water over a rheumatic invalid, any more than he should attempt to trifle with a galvanic battery.

We have known cases of long standing, that have withstood a long series of drug treatments to be relieved in a comparatively short time by the judicious application of wet cloths to the swollen parts, alternated with gentle spongings, while the system was nourished by simple food, and the waste passages kept in good condition.

Vegetarians, as a class, are very free from inflammatory diseases of all kinds, while those inclined to the free use of meats and drinks with the accompaniments of rich sauces and hot seasonings, they who are styled "high livers," are specially subject to them. This is shown by the published experience of men who had been great flesh-eaters, and who modified their diet until vegetables, fruits, and

farinaceous articles became its chief elements. The testimony of Drs. B. W. Richardson, Edmunds, Fothergill, and other eminent practitioners of medicine, go far toward confirming the averments of practical hygienists in this respect.

Dr. Hall advises as "the easiest, most certain, and least hurtful way of curing this troublesome affection is, first, to keep the joint affected wound round with several folds of woolen flannel; second, live entirely on the lightest kind of food, such as coarse breads, ripe fruit, berries, boiled turnips, stewed apples, and the like."

The proper hydropathic treatment for any fully developed ailment like rheumatism can scarcely be found outside of a well-equipped hygienic institution; but in ordinary acute cases, if unexciting, nutritious food be eaten, and the bowels kept freely open, and exercise taken, so that a slight moisture may be on the surface of the skin all the time; or if, the patient being in bed, the same thing were accomplished by suitable drinks and plentiful bed-clothing, a grateful relief and an ultimate cure will very certainly result in a reasonably short time.

THE EDITOR.

LITERARY WORK AND TOBACCO.—In response to a circular recently sent out by Mr. Arthur Reade, who has been collecting information as to the habits of literary men in regard to stimulants, the Abbe Moigno gives an interesting and characteristic record of his experiences. The letter appearing in his paper, *Les Mondes*, states that he has published 150 volumes, small and great; that he scarcely ever leaves his work-table, and never takes walking exercise; yet he never has a trace of headache, or brain weariness, or constipation, or any form of urinary trouble, etc. He never has recourse for his work to stimulants, coffee, alcohol, tobacco, etc.—a statement which the sequel shows to need qualification. Snuff-taking he has sometimes practiced, but he vigorously condemns it. He has learned

12 foreign languages by a method of his own, and with regard to his acquirements in philology and chronology, he says, "I was one of the most extraordinary personalities of my time, and Francois Arago sometimes laughingly threatened to have me burnt as a sorcerer." On one occasion when in Munich for a few weeks and spending his evenings with Bavarian *savants*, who each smoked four or five cigars, and drank two or three pots of beer daily (Steinheil, the most illustrious, boasted of smoking 6,000 cigars a year), the Abbe came to smoke three or four cigars a day. He had also anew taken to snuff, so that, when preparing his calculus of variations, a very difficult mathematical work, he would empty his snuff-

box (which held 25 grammes) in a day. But one day he was surprised to find himself painfully unable to recall the meaning of foreign words, and remember dates with which he had been familiar. Thereupon he formed a heroic resolution, and since August 31, 1863, when he smoked three cigars, and took 25 centimes worth of snuff, he has up to the 25th June, 1882, touched neither. This was for him a complete resurrection, not only of memory, but of general health and well-being; he has had indefinite capacity of work, unconscious digestion, perfect assimilation of food (of which he can take more), etc. He goes to bed at nine and rises at five, "full of vigor." The Abbe is over 80.

THE JAPANESE AS VEGETABLE EATERS.

THE American Consul-General at Yokohama not long ago gave a brief review of the food habits of the Japanese that is interesting, both as regards the facts and the comments of the official observer. He said: "So universal has meat-eating become among the dominating races, that the praises of beef are sung wherever Occidental civilization has gone, and it is not only a popular belief, but an accepted scientific opinion, that any well-fed people must use animal food considerably; to have meat to eat frequently is reckoned the best proof that the common laborer in a country is well favored. Japan, with a population of 36,000,000, equal to that of the United Kingdom, engaged in very diversified industry, presents a complete exception to the rule as to food. The scarcity of animal food, in consequence of the non-intercourse policy, and its almost unnecessary prohibition by the religious faith, have made a nation of vegetarians, except as to fish, which is not forbidden as 'flesh.' There are now in the country hardly more than 1,000,000 cattle; of these, as emasculation is not practiced, the males being used for breed-

ers, only 600,000 cows can be looked to as food, and there are less than two head to each 100 people, against 73 head in this country. Of the 36,000 head slaughtered in 1880, the foreign residents and the foreign marine consumed more than half. Outside of the treaty ports, mutton and pork are almost unknown; there is an abundance of fowls, both wild and barnyard, but the common people can not pay for them. The supply and variety of fish, however, are very large, over 200 kinds being used as food, and the Government is actively working to increase both. Already probably one-half the people eat fish once a day, one-quarter several times a week, and the rest several times a month. Still, the food of the masses is more than nine-tenths vegetable, and the list of this has been made long by their necessity-sharpened wits. Of cereals, rice is the most important, occupying more than half the tilled area in summer; barley, millet, wheat, rye, and corn rank next in the quantity produced. There are said to be some 250 varieties of rice-seed; a hulled bushel weighs 62½ to 65 pounds, and it contains almost 90 per cent. of starch. The

millet is 55 to 63 per cent. starch and sugar, 11 to 13 per cent. nitrogenous matter, and about 81 per cent. of nutriment in all, being almost equal to the best American wheat; buckwheat, containing 82 to 95 per cent. of nutriment, is also grown largely on the lighter soils. Beans and pease are more extensively cultivated in Japan than anywhere else, and there are over 40 varieties. One—the soy bean or Nirva-mume—contains 20 per cent. fat and 60 of nitrogenous matter, starch, and sugar, and closely approaches meat both in composition and in its action on the body. The sweet potato, being very prolific and cheap, ranks next to rice in importance, 16,000,000 bushels being the last reported production. A large white radish, called daikon, growing up to a yard in length and 14 pounds in weight, is a very common and popular food, but the common potato is little used by the natives. A surprisingly large list of wild plants and sea-weeds is utilized as food. The place of sugar is considerably supplied by a preparation made from millet or rice and malted barley, the starch of the rice or millet being con-

verted by the malt, and the product varying from a thick sugar or honey up to hard candy, being cheap and in large consumption. Sauce, so-called, enters very largely into use with food plants; its name is shoyu, known to us as soy. The kind almost exclusively used is made from wheat and the shoyu bean ground in equal parts. It is boiled and steamed, then left to ferment; after being then dried in the sun it is allowed to stand awhile in a cask of salt water, is then strained and is ready for use, the refuse being fed to cattle. Its flavor is pleasant, and it is said to be the basis of most of the celebrated sauces put up in England.

“The proof of the pudding being in the eating, it is interesting to note the testimony that the Japanese—a race of good proportion, physique, and strength, whose comforts are much less and whose exposure is much greater than in case of Western nations—live an average life, in length and health fully up to that of the European or American, with a table expenditure of not more than one-sixth or one-seventh that of the latter.”

PROFESSIONAL NURSES.

IN response to inquiries that have come to us on the course to be pursued by those women who wish to fit themselves for the important duties of nurse to the sick, the following condensed account taken from the *Churchman* is published. The *trained* or professional nurse is the necessary outcome of an imperious want, experienced by the city physician especially, and for eleven years there has been a school in New York where women are instructed in the methods and duties proper to the sick-room. This school has its office and home at 426 East 26th Street:

For women desirous of becoming professional nurses arrangements have been made with the authorities of Bellevue Hospital for a two years' training. Ap-

plicants, upon being approved of by the superintendent, are received for one month on probation, the acceptable age being from twenty-five to thirty-five. During this month they are subjected to an examination in reading, penmanship, simple arithmetic, English dictation, etc., women of superior education and cultivation, other things being equal, having the preference. Those who prove satisfactory become members, after signing an agreement to remain two years in the Training-school for Nurses, and to obey the rules of the school and hospital.

In the two years in which they reside in the Home, their training includes instruction in the dressing of blisters, burns, etc., the best method of friction, the management of helpless patients, the

preparing, cooking, and serving delicacies for the sick, and much else of equal importance. The teaching is given by visiting and resident physicians and surgeons at the bedside of the patients, and by the superintendent, assistant-superintendent, and head nurses. Lectures, recitations, and demonstrations also take place from time to time, the first being delivered by well-known physicians and surgeons.

The pay for the first year is \$9 a month, when the pupils serve as assistants in the wards of Bellevue. For the second year they receive \$15 a month, and are expected to perform any duty assigned them by the superintendent, either to act as nurses in the hospital, or to be sent to private cases among the rich or poor. They are required to bear in mind what is expected of them in the character of Christian nurses; to take the whole charge of the sick-room, doing whatever is requisite; to make themselves generally useful in families without servants, if the patients do not wholly occupy their time; to be careful not to increase the expense of the family in any way; to hold sacred any knowledge they may obtain of the private affairs of such households or individuals as they attend; and to bring back a report of their conduct and efficiency from the family of the patient and from the medical attendant. The charge for their services is \$3 a day, or \$16 a week, this sum serving in part for carrying on the work of the institution.

The sixty-four pupils belonging to the school had charge last year of the two hundred and fifty-eight beds in fourteen medical and surgical wards of Bellevue, besides nursing one hundred and twenty-five private cases. For these services the pay amounted to over \$12,000. On leaving the school and passing a thorough written and oral examination, they receive a diploma signed by the examining board and by a committee of the board of managers. They are then at liberty to choose their own field of labor, whether in hospitals, in private families, or among the poor.

In order to increase the finances of the school, it was decided last winter to establish a board of registry for graduated nurses, each one paying \$10 a year. Of the graduates, there have been one hundred and ninety-five, and the amount received in fees was \$620. In consideration of this fee the superintendent keeps the nurses supplied with places, the calls so supplied having amounted the past year to over five hundred. The whole number of calls was over eight hundred. Though the nurses receive \$20 a week, they are never unemployed. But recently six were sent for by one of the Southern cities, and not one was to be had. Of twenty-seven demands the past year for these trained women to assume responsible positions in hospitals, training-schools, and other institutions, only eight could be filled by the schools. Of calls for private nurses, nearly two hundred were declined.

So far from the demand being more than met, even the city of New York, said Dr. T. Galliard Thomas, in his address to the last graduating class, has not yet been half supplied with reliable and intelligent nurses. In fact, taking into account that of two hundred applicants for positions in the Training School since January, only thirty-two could be received, it is evident that this philanthropic and excellent work is but just begun.

The school seems especially fortunate in its superintendent, Miss E. P. Perkins, a lady, it would appear, admirably fitted for the position, and having full power to decide the fitness of probationers for their work and the propriety of retaining or dismissing them.

Here is a sphere for which women are specially fitted, and in which their services find remuneration much above the average salary of the shop clerk or school teacher.

VENTILATION OF BEDROOMS.—The necessity for ventilating the bedroom may be made very plain by a simple experiment. Weigh yourself before going to bed, and then again in the morning

after rising, and you will find that you have lost from one to two or more pounds in weight. This loss is partly in water; but it is also partly in the carbon of our food. These substances have been burned up and their product carbonized—*i. e.*, with some animal matter have escaped into the air of the bedroom. Now, if a single ounce of cotton were to be burned in the bedroom, it would fill the air with smoke so as to make respiration uncomfortable, and if this were repeated every hour during the night, even then it would not

pollute the atmosphere more than the breath of a single individual during the same time. If two persons sleep in a room, they pollute the air twice as much as when only one sleeps in the same room.

About three thousand gallons of fresh air should be admitted hourly for each person sleeping in a bedroom, in order to maintain a proper degree of purity. It is not enough to keep the windows open during the daytime; they must also be kept open during the night, or other methods equally efficient employed.

NOTES IN SCIENCE AND AGRICULTURE.

Mental Dialogue.—A New York physician and lecturer in one of our Medical Colleges declares his hearty belief in the communication of mind with mind without language, vision, touch, or any ordinary vehicles of sense. He believed, at first, that such an assumption was groundless, but the experiments of the late Dr. Beard, and afterward those of Professor Thwing, convinced him of the existence of some hitherto unrecognized means of converse or "thought transference," as our English friends call it. He then instituted experiments with various patients, and succeeded in repeated cases in rousing them from the insensibility of the trance state by silent will power; also, in awakening pleasure or disgust for certain articles of diet. Tactile sensibility is appealed to, so that a half-dollar out of a handful of silver change becomes so hot that it is dropped upon the floor, the operator's face being turned away and not a word spoken.

In waking the hypnotized he recommends that the experimenter fix his attention on the individual's eyelids, as they usually show the first signs of returning consciousness. Even after ocular mobility appears, by withdrawing thought the subject relapses into trance torpor.

Sir W. Thomson and others regard this responsiveness as a sixth, special sense. The explanation of its action involves that of mind-reading, so called. Doubtless all of us possess more or less of susceptibility or receptivity. The active and passive conditions are perfected by trial. Internal agencies often develop the pathological trance, and outward, voluntary agencies induce the same in many persons. The number of those who are sensitive is much larger than is supposed. Repeated failures are by no means conclusive. When entirely favorable conditions are secured, success will almost certainly crown continued endeavor.

Mental Dialogue is perhaps the most interesting feature of the Trance state. In

recent experiments in Brooklyn, different persons who never before were known to walk in their sleep, were caused to walk about different rooms, up and down stairs, and wherever the operator went. The movements of these artificial somnambulists were guided wholly by unspoken thought. Lying at full length, one of them assumed a sitting posture when the operator's hands were placed just above the head. Or, when sitting, the silent mandate to rise and walk drew the person wherever the director willed.

When George Macdonald made Euphras Cameron obey the will of the Count to join him in the street, it seemed to many readers a novelist's fancy. Truth, however, again is proved stranger than fiction. Investigations into the involuntary life are revealing mysteries that equal those of "David Elginbrod." That Mental Dialogue can be perverted, and one soul enthralled by another for evil, is no reason for ignoring the facts. Only the ostrich and idiot fancy that shutting the eyes to peril and burying the head in the sand will bring safety. Truth does not shun investigation. Evil dreads it. Candor and intelligence demand it. No period was ever so favorable as the present for scientific, impartial scrutiny.

MERLIN.

The Laboratory that Jack Built.

—As formulated after an ancient nursery fable by the *Chemical News*:

This is the laboratory that Jack built.

This is the window in the laboratory that Jack built.

This is the glass that lighted the window in the laboratory that Jack built.

This is the sand used in making the glass that lighted the window in the laboratory that Jack built.

This is the soda that, melted with sand, compounded the glass that lighted the window in the laboratory that Jack built.

This is the salt, a molecule new, that furnished the soda that, melted with sand, com-

pounded the glass that lighted the window in the laboratory that Jack built.

This is the chlorine, of yellowish hue, contained in the salt, a molecule new, that furnished the soda that, melted with sand, compounded the glass that lighted the window in the laboratory that Jack built.

This is the sodium, light and free, that united with chlorine, of yellowish hue, to form common salt, a molecule new, that furnished the soda that, melted with sand, compounded the glass that lighted the window in the laboratory that Jack built.

This is the atom that weighs twenty-three, consisting of sodium so light and free, that united with chlorine, of yellowish hue, to form common salt, a molecule new, that furnished the soda that, melted with sand, compounded the glass that lighted the window in the laboratory that Jack built.

This is the science of chemistry that teaches of atoms weighing twenty and three, and of sodium metal so light and free, that united with chlorine, of yellowish hue, to form common salt, a molecule new, that furnished the soda that, melted with sand, compounded the glass that lighted the window in the laboratory that Jack built.

The Deluge and Noah's Ark.—A CORRESPONDENT'S DIFFICULTIES.—Editor of the PHRENOLOGICAL JOURNAL.—Dear Sir: What is the present standing of geological science in regard to the Deluge? Do scientific men generally accept the account of a universal flood, as recorded in Genesis, as literally true, or does the result of their investigations incline them to a negative answer?

In a recent Number of the JOURNAL I read an account of sea-shells, found in a big gravel-bed on the top of a mountain in North Wales, 1,390 feet above the level of the sea. The writer considers those shells as a positive proof that the sea, within a comparatively recent period, covered that mountain. He further shows that the waters were transitory in their operations there, and in a turbulent state, scattering the shells in a confused mass. Similar deposits, he says, are found all over certain counties of England; and his conclusion is that they furnish unmistakable evidence of the Deluge described by Moses.

The Church of the New Jerusalem, whose doctrines are embodied in the writings of Swedenborg, gives a purely spiritual explanation to the first eleven chapters of Genesis. It asserts that they form part of an Ancient Word, the rest of which has been lost, and that by the Deluge therein described is meant the universal corruption of mankind, which caused the destruction of the most ancient or Adamic Church. It denies that there has been a flood of material waters, by which almost the entire human race was destroyed. Dr. Ellis, in a work entitled "Skepticism and Divine Revelation," quotes Prof. Buckland, of Oxford, and Prof. Sedgwick, of Cambridge, both of whom at one time taught that there

was a Deluge, but at a later day recanted their opinion as a philosophical heresy.

Having read these contradictory statements, I am anxious to know what the scientific men of the present have to say on this matter. I do not expect a unanimous answer, but I desire to know the opinion now held by the majority.

Before leaving this subject, permit me to call attention to a few difficulties in the way of a literal interpretation of the Biblical account of the Deluge. There may be others and greater ones, but these have occurred to me recently, while studying the subject.

The length of the ark, we are told, was 300 cubits, its breadth 50 cubits, its height 30 cubits. The Hebrew cubit being taken at 18 inches, this statement would make it 450 feet long, 75 feet wide, and 45 feet high. It was certainly a big vessel; but was it large enough to hold the required number of animals that can not live in the water, together with food enough to supply them all, as well as Noah's family of eight persons, for an entire year? Not knowing the number of species, and the amount of food they would need, I will not attempt to solve this problem; but I understand that scientists and mathematicians who have tried it, have here found a stumbling block. The Bible tells us that of all beasts, both clean and unclean, of fowls and every creeping thing, two and two went into the ark and were saved; that "every living substance was destroyed which was upon the face of the ground, both man and cattle, and the creeping things and the fowl of the heaven; and Noah only remained alive, and they that were with him in the ark." This language evidently implies a general flood, and a general destruction. Now, it is believed that the ark was built somewhere in Asia, and that all the animals that were to be saved came and entered it there, when finished. But a number of land animals—the jaguar, cougar, grizzly bear, condor, rattlesnake, and others—have been found in America, while unknown in the Old World. If these animals lived in America before the flood, how did their representatives cross the vast profound, to reach the ark? If their ancestors before that calamity were not here, we still must ask: How did they get to this continent after the flood? Or may we assume that America at that time was not yet separated from the Eastern World, or that a new creation took place after the Deluge? The latter supposition seems clearly contrary to the account of the creation given in the first and second chapters of Genesis.

Another difficulty occurs in the text of the Biblical narrative. Four times it refers to the number of animals that entered the ark. In the first place, Gen. vi. 19, Noah is commanded to bring into the ark "of every living thing of all flesh, two of every sort." In ch. vii., v. 2, the command is repeated, but a distinction is made between clean and unclean animals; the former were to be taken by *sevens*, the latter by *twos*. In verse 8, the beasts and fowls and creeping things are represented as

entering *two and two*, nothing being said of sevens. In verse 14 this account is repeated, and again it is said: "They went in unto Noah into the ark, *two and two* of all flesh, wherein is the breath of life." There is evidently a disagreement here, which can only be removed by a change of reading.

The greatest difficulty, to my mind, is in the window of the ark. This immense vessel, 450 feet long, 75 feet wide, and 45 feet high, was divided into three stories (Gen. vi. 16); it had a door set in its side and a window above, finished "in a cubit." That there was but one window is further evident from ch. viii. 6, where it is said that Noah opened *the* window of the ark which he had made, and sent forth a raven. Think of one window, about 18 inches square, in the roof or near the top of this huge ship, and that remaining closed for 190 days after all those animals and human beings had entered! The door was closed also, for in ch. vii. 16 we read that the Lord shut Noah in. Moreover, the vessel was pitched within and without. It follows that the animals in the first and second stories were in total darkness, and the entire ark was without ventilation. How, according to natural laws, could this multitude of living creatures endure such confinement even for half a day? By assuming miracles, all these physical difficulties may, of course, be cleared away; but several miracles must be assumed to explain the account as it stands, and this mode of explanation is not quite satisfactory to a mind disposed to reason about things.

If any reader of the JOURNAL, theologian or scientist, can explain these difficulties in a rational manner, I should be much pleased to see him or her do so through your columns. I am quite willing to admit my inability and ignorance; but as we should never remain in ignorance for want of asking instruction. I thus endeavor to learn the truth about this great event, which, as commonly understood, swept away from the face of the earth a world of living beings and almost an entire race of humanity. Sincerely yours, H. A. S.

Ancestors of the American Indians in DOUBT.—The new weekly, *Science*, in an item relating to the results of recent explorations of the Ohio mounds and earthworks, thus confesses to the ignorance of the world about our Indian races:

"The fact is we do not know who the Indians are, or who were the old builders of Palenque, of Uxmal, of Tiahuanuco, and numerous other old cities from Mexico to the eastern side of the Andes in South America. Until we awake to the fact that America has an interesting past, and can arouse ourselves to the effort of making out the ancestors and descendants of all these peoples who have left us such marked differences in their architecture, their works of art, their customs and their languages, we act the part of amateurs, when from a little knowledge of a few of these different conditions, and from superficial or very general

resemblances, we draw hasty conclusions. Only the most thorough explorations, conducted by men who have broad views and careful methods of work.—men who are above being led by theories to be maintained; who will look at facts in the same manner as a geologist or a biologist looks at his facts, letting them lead him where they will,—will solve for us the great problems of American archæology. The days of collectors of curiosities and hasty writers are over. Archæology is a science, and no longer in the hands of the mercenary dealer and the equally avaricious collector of curiosities. Give the proper institutions the support they ask for, and the near future will bring valuable results."

A Curious Ocean Phenomenon.

—The crew of one of the New York pilot-boats report having observed a remarkable phenomenon at sea, off Sandy Hook, one Saturday night. They say that, for a considerable distance all around the vessel, the sea was red, and upon investigation it was found to be caused by myriads of worms, two inches in length and a quarter of an inch in diameter. Similar instances have been observed in the ocean before, but they are of infrequent occurrence. A case was reported to the Navy Department in 1867, the facts of which are briefly as follows:—The United States steamer *Iroquois* had been ordered to the Asiatic Squadron. One night in September, when the vessel was under sail in the Straits of Malacca, the sea as smooth as glass, and the vessel making hardly steerage way, the officer of the deck observed that the water was milky white. Commander Earl English, now Commodore and Chief of the Bureau of Navigation and Detail, was in command, and the remarkable sight induced the officer of the deck to call the captain from his sleep. When he came on deck he realized that the condition of the sea was caused by animalculæ, an instance of which he had witnessed in about the same locality several years before when he was a midshipman. He immediately had every officer and man called on deck to witness the strange scene, and they looked over the rail for two hours until after the vessel passed through it.

Another instance of the kind was observed by Lieutenant Sherman, in the summer of 1882, on the coast of Peru, between Payta and Chimbote. The sea then was perfectly red, and upon investigation it was found to be caused by animalculæ.

Bare Animals in the New York

CENTRAL PARK.—The gazelle that was presented to Commander Ludlow, of the *Quinnabaug*, by the Viceroy of Egypt, and by him transferred to the *Porohatan*, to be brought here and placed in the Central Park Menageries, was recently contentedly chewing her cud in a large stall in the building devoted to deer, sheep, goats, and similar animals. There were no appearances of home-sickness

about her actions and she accepted as her due the attentions paid by visitors. She is fawn-color, has horns about six inches long, and stands, although full-grown, only two feet high, with legs about the size of one's thumbs. She seems to realize that her short tail is an insufficient protector from flies, and lies close to the partition, so as to present less surface on which they can alight. W. A. Conklin, the manager of the zoological department of the Park, recently returned from Europe, bringing with him a Russian bear, one pair of black-backed jackals, a crested screamer, a pair of spur-winged geese, a pair of Australian ducks, a pair of European badgers, a pair of jerboas, and two pairs of jerbilis, as presents from the Zoological Garden of London. The jerboas are diminutive kangaroos. They hop along like a bird. Their front legs are only rudimentary. The head is like that of a squirrel, having a large, bright eye. The body is only six inches long, and the tail, which is the most conspicuous part of the animal, is twelve inches long and bushy at the end. The jerbilis is similar to the jerboa, but is only half as large. They are from Australia. Mr. Conklin expects some of the European wood-pigeons from the Dresden gardens, with which he expects to stock the Park. They are not migratory, but live in the same place the year round.

Birds' Tastes for Color and Music.—Mr. E. E. Fish, in a paper on "The Intelligence of Birds," published in the *Bulletin* of the Buffalo Naturalists' Field-Club, ascribes to birds a keen perception of color and capacity to be gratified by artistic arrangement of colors, and a strong susceptibility to musical melodies. Evidence of the enjoyment of color is given by the tasteful combinations with which many birds adorn their nests, and by instances in which their choice of companions, food-fruits, etc., is guided by color. Many of the feathered tribes also "manifest real pleasure at the execution of simple harmonies. They enjoy the notes of musical instruments, but more especially their own songs and those of one another. . . . Our unmusical English sparrow enjoys the songs of other birds; on different occasions I have seen several of them gather about a robin as he caroled a pleasant song; when they came too near or in too large numbers, he would dart at them and drive them out of the tree, but when he commenced again to sing some of them were quite sure to return. A friend sends me an account of a bobolink, that, placed in a cage with some canaries, exhibited great delight at their songs. He did not sing himself, but with a peculiar cluck could always set the canaries singing. After a while he began to learn their songs, note by note, and in the course of a few weeks mastered the entire song." The goose is also fond of music, "and a lively air on a violin will sometimes set a whole flock wild with delight. On one occasion, at a country wedding, I was witness of a curious performance by one of these animals. After dinner a

lady entertained the guests assembled on the lawn with music from an accordeon. A flock of geese were feeding in the road just below the house, and with outstretched necks answered back loud notes of satisfaction. Soon a white gander commenced dancing a lively jig, keeping good time to the music. For several minutes he kept up the performance, to the great delight of the company. The experiment was tried several times for a week or more, and the tones of the accordeon never failed to set the old gander into a lively dance."

A New Thing in Ovens.—This is a provision in the shape of a wire gauze door fitted to the oven, to introduce fresh air while baking is in progress. The *Age of Steel* says of it:

"The ventilated stove oven is with us no hobby; our attention has been drawn to it by the experiments which a large stove manufacturing company has been carrying on; these have satisfied us of its value, but have not convinced us that it is our bounden duty to hammer other people into our way of thinking. Our interest in the new invention is of that impartial kind which declares for fair play and then abides the result. The wire gauze door is, we believe, the only method yet hit upon by the friends of ventilated ovens for admitting the fresh air, though we understand an Eastern manufacturer proposes to bring out a stove in which the draft will in some way be made direct from the oven to the flue, and from the outside into the oven, in a new and unexplained manner. With the wire gauze door the hot air escapes through the upper part of the door and the cool air flows in through the lower part, according to natural laws. The result is, the bottom of the stove upon which the cooking is done is kept comparatively cool. One would think that even with a good fire going it would be difficult to bake bread or roast meat. But it is not, and the hot air escaping from the oven need cause no alarm.

"One advantage claimed for the ventilated oven is that it prevents a great wastage of the moisture contained in the meat or whatever may be cooking, and thus insures tenderness as well as greater weight. In the closed oven experiments show that a piece of meat loses 30 to 40 per cent. of its weight, if well cooked, by absorption. In the ventilated oven the loss has frequently been as low as 10 per cent., and rarely, if ever, in excess of 15 or 20 per cent. In other words, it appears that the meat in the closed oven is dried rather than cooked, and is made the tougher because of its treatment. The originator of the wire gauze oven doors, it may be said, declares that he can take the cheapest and toughest steak in the market and cook it in the ventilated oven, with the result of making it as tender and juicy as the best porterhouse. He is emphatically of the opinion that meats cooked in the oven are made tough and indigestible by the dry heat, which robs them of all moisture."

What the Greely Expedition Effected.—The *New York Tribune* endeavors to throw a sunny gleam upon the unfortunate Greely expedition by reviewing the scientific work done by that party in the far North, as follows :

"The observations taken simultaneously by the ring of colonies surrounding the North Pole were those of the declination and deviation of the magnetic needle, height of barometer, temperature of air and water, and the mean and maximum rise and fall of the tides. The readings for the various instruments at Fort Conger are not only for the twelvemonth of preconcerted work by all the colonies, but for two years. Lieutenant Greely, having been stationed at the highest latitude, and having done his work thoroughly, will be able to contribute the most important budget of scientific knowledge to the Polar Congress. The value of this work can easily be illustrated. In the course of the tidal observations two facts of great significance were disclosed. The tides at Discovery Bay came from the north instead of the south, and the temperature of these northern tides was two degrees higher than that of the southern tides at Cape Sabine. This demonstrates not only that the tides from north and south meet at some intermediate point in Smith Sound, but also that the northern body of water is the warmer, and positively comes from the open polar sea or else is fed by currents branching from the Gulf Stream.

"Lieutenant Greely believes that there is an open polar sea. He thinks its existence is proved by the northern drift of ice from Spitzbergen and Novaia Zembla in midwinter, and the similar movement of the pack in the Polar Sea witnessed by Dr. Pavy and Lieutenant Lockwood. To these proofs may be added the drift of the *Jeannette* to the northwest, the northern currents observed during the voyage of the *Vega*, and the flight of birds northward from Point Barrow and other localities in high latitudes. The evidence, however, is not conclusive, and the weight of scientific conviction will probably be on the side of Sir George Nares and Lieutenant Weyprecht against the existence of an open polar sea. But be this as it may, the polar sea is not, as the English expedition supposed, a solid mass of ancient palæocrystic ice, immutable as the precipitous cliffs overlooking it and unchanged by the movement of tide and current. Both Dr. Pavy and Lieutenant Lockwood were stopped in their advance by wide lanes of open water, and the climatic conditions and the abundance of animal life on the northern coast of Greenland indicated the presence of a warmer body of water than was found at Cape Sabine, at the entrance to Smith's Sound. Lieutenant Lockwood in making his famous sledging journey frequently met with open water and broken packs, and as he went north continued to observe the same peculiarities of vegetation and animal life. Apparently he was journeying in the track of a warmer Arctic current than the southern

tide which rises and falls in the lower waters of Smith Sound. The experience of the explorers in this way points to the existence of a current branching from the Gulf Stream, between Spitzbergen and Franz Josef Land, and circling around the northern shore of Greenland.

"Lieutenant Greely believes that the North Pole will be reached, if at all, by way of Franz Josef Land. The facility with which Leigh Smith has twice made the voyage to the Austrian Archipelago has dispelled Lieutenant Weyprecht's theory that this route was only open to ice-bound ships drifting at the mercy of the polar currents. The passage seems to be practicable every summer, provided a westerly course be taken, the explanation being that the Gulf Stream breaks up the ice east of Spitzbergen, whereas it is massed by northwesterly currents from the direction of Cape Chelyuskin. The extent of land in the Austrian group is, however, a matter of vague conjecture. In Baron Nordenskjöld's judgment it stretches in the direction of Petermann's Gillis Land, if not toward the Pole itself. The choice of routes for the next expedition apparently lies between Franz Josef Land and Smith Sound, with a chance of effective work on the east coast of Greenland."

Contrasts of "Progress."—A New England observer says: "One hundred years ago it took two days to go from Concord, N. H., to Boston; now it takes three hours. Then the price of supper, lodging, and breakfast on the road was a pistareen and a half (thirty cents); now it is three dollars. Then all work was honestly done (as witness two pork barrels in the cellar under the house in which I write, which have been in use since 1731, one hundred and fifty years); now honest work, as the term was then understood, is unknown. Then girls were educated to become thrifty wives and healthy mothers; now it is considered more important to make a good match. In 1772 the average number of children in each family in New Hampshire was seven; now it is two; there was at that time one physician to every four hundred souls; there is now one to every seventy-five; suits at law for all purposes not criminal then averaged one annually for every hundred inhabitants; they now average one for every twenty-four. The expenses which a well-to-do family incurred every year for its support were at that time four hundred dollars; they are now five times that sum.

"When the war of the Revolution began, there was but one man in the above State who was worth more than thirty thousand dollars; there are now forty-five worth more than a million. There were then but thirty-five wheel carriages and they all were chaises save two; there are now fifty thousand. Oxen then did all the agricultural work, and there were twelve hundred and forty-one yokes of them in the State; oxen and horses now equally divide such work, and they number hundreds of thousands."



FOWLER & WELLS Co., Publishers.
H. S. DRAYTON, A.M., M.D., Editor.

NEW YORK,
NOVEMBER, 1884.

THE ANTECEDENTS OF PHRENOLOGY.
—No. 3.

APPROACHING now the time of Dr. Gall's announcement of his system, or during the second half of the eighteenth century, we find many authorities, eminent in physiology and philosophy, asserting their belief in the organic divisions of the brain. For instance, we have the Swiss naturalist Bonnetus declaring that the brain is formed by the union of different organs corresponding with and contributing to the multiplicity of ideas (*Palingénésie Philosophique*, I. 333). He is quoted by M. Georget in his treatise on the Physiology of the Nervous System as saying: "Each sentiment has its peculiar fibres; when the fibres are put in motion too violently, or for too long a time, they are fatigued and suffer pain. Each part of the brain has a distinct function of its own in the mental economy."

This doctrine is repeated in so far as the action of the fibres is concerned by the view advanced by the cerebrationists of to-day, that thought, or the manifestation of mind, is the product of nervous energy in the medullary substance of the cerebrum, and by which cellular changes

are effected—the evolution of thought being accompanied by the destruction or decomposition of certain portions of brain matter. Mental processes, therefore, according to this idea, are but a high form of material action, an exalted chemical procedure as it were. Bonnetus, however, we are quite sure had no thought of this material outcome of an idea that is rational enough in itself, as it was founded upon the common experience of intellectual fatigue. There were the eminent physicians, Haller, Van Swieten, and Tissot, who entertained the belief that the internal senses occupy organs or regions in the brain as distinct as the nerves of the external senses. Besides them, we have Cabanis and Prochaska, distinguished in the realms of both anatomy and philosophy, who advocated similar views. The former of these is regarded as a materialist, so positive are his utterances on the nature of thought. In his *Rapports du Physique et du Moral de l'homme*, he defines the nature of life as a simple, active principle, that "acts diversely in the organs according to differences of structure and function. It digests in the stomach, breathes in the lungs, secretes bile in the liver, and thinks in the brain." He placed reflection in the cerebrum, but the passions in the viscera, as did many of the doctors. Prochaska summarized the views of his predecessors in his "Dissertation on the Functions of the Nervous System," thus: "It is our consciousness, and a certain peculiar feeling which convinces every one that he thinks with his brain. But since the brain as well as the cerebellum is composed of many parts variously figured, it is probable that nature, which never works in vain, has destined these parts to various uses, so that the various

faculties of mind seem to require different portions of the cerebrum and cerebellum for their production."

When we consider the material tendencies of statements like this, and the close relation of such reasoning to what was subsequently wrought out in the system of Gall and Spurzheim, it is evident enough that the intolerance and malignity that assailed the phrenologists in the outset of their career as teachers were largely owing to the false impressions entertained by their opponents of relations subsisting between the old anatomists and the phrenologists. The latter were regarded, it is altogether likely, as a new class of public expounders of the old materialistic sophisms, and bigotry and ignorance insisted upon this view of the Gallian system, in spite of protests and explanations, and notwithstanding the welcome it received during that famous two years' progress of the colleagues Gall and Spurzheim, from Vienna to Paris, when they visited the university centres, and explained and illustrated their discoveries with the utmost frankness to the most learned of Europe.

The barriers that were erected to the march of phrenological truth by opponents who preferred the charge of materialism and correlative infidelity have not all disappeared. To-day the cry is raised now and then that Phrenology is godless, and its teachers agnostic or irreligious. Dr. Nahum Capen, of Boston, author of "History of Democracy," quotes the following apposite paragraph from an address by Dr. Barber, also of Boston, on the objections to Phrenology, thus: "Its enemies have said that it is an irreligious science, that it leads to *materialism*. The objection I have had to this argu-

ment is that it is entirely senseless. My allegation against it is not that it is false, but unintelligible. The question *whether the brain thinks* is mere logomachy; the words, however correct in grammatical construction, have not any correspondent ideas, and can not have. We are limited in the attainment of knowledge to the exercise of the senses, of the knowing and of the reflective faculties. Now, by what conceivable exaltation of the powers of *sensible* discernment can we be supposed to *perceive* thought-particles in the art of *thinking*, or by what knowing or reflective faculty can we form a notion of such a process in the brain? Consequently whether the brain thinks is a question just as intelligible as that attributed to the old school-men, 'whether a chimera bounding in a vacuum could eat up the second intentions.'"

The discoveries made by the phrenologists established the fact of the brain's relation to the mind. This is a crown that no unjust or prejudicial sophistry can wrest from them. The wise men of the ages before dreamed and speculated on the possibilities of conscious impression—the more sanguine formulating theories of localization in which facts, although undetermined in accordance with the methods of later science, were employed with a skill that claims our respect. As we have shown, many believed and taught the system of Aristotle, and helped, by their earnest discussions and controversies on the nature of mind and the functions of organism, to push onward the mighty wave of thought until it broke upon the solid ground of Phrenology.

The whole sphere of reasoning on consciousness had been well swept by the metaphysicians, as appears in the treat-

ises of most modern philosophers, who do little more than review the old writers from Aristagoras and Plato to Locke and Descartes. Those who reason inductively are, as a class, more physiological and philosophical, and their premises differ more in terminology than in rationale from the phrenologist. When such men candidly investigate the doctrines of mind so comprehensively elucidated by George Combe, rarely are they unwilling at last to aver with Dr. Samuel G. Howe, "That the manifestation of mind is dependent most immediately upon the structure and condition of certain parts of the brain; that the structure is dependent in a great degree upon the obedience or neglect of certain known laws by the human race in general; that the *condition* is dependent in a great measure upon the use or abuse, exercise or neglect of his organization by each individual. Lastly, it teaches that the body may be the corrupt and unhallowed abode where selfishness holds uncertain sway over tumultuous propensities and fierce passions; or may be swept and garnished and become a fit temple for the transient dwelling of a spirit emanating from the Deity himself."

This is modern Phrenology.

APROPOS TO THE SEASON.

WE are told by business men that trade is dull because it is a year in which public attention is specially given to political affairs, on account of the contest for the Presidency. It is well that people show an earnest interest in these affairs; and if it were not only during the Presidential canvass, but also on every occasion when it became necessary to se-

lect men for public offices, that close and absorbing heed were given to the matter by the community at large, there would soon be a more healthful condition in National and State government. The business man, the professional man, and men generally, whose culture and habits draw them somewhat apart from the masses, are in a great measure inclined to regard politics with indifference, and to avoid the exercise of the right and duty of a citizen—to vote. This fact is too well known to need emphasis, and the unhappy consequences of it are the frequent topic of the public economist. Some excuse their lack of interest in politics by alleging the dishonesty and trickery of political organizations, and declaring that their voice or vote would only be "thrown away." They forget that duty and obligation call upon them to act, although they may only "throw away" their vote. But influence exerted on the side of principle, of justice, of public weal, is not wasted. It may appear small,—despised amid the rout of clamorous and contending factions,—but in time it becomes the leaven that will regulate and purify the muddlement of civil affairs. A man can always do his duty as a citizen. He can speak for order and reform; he can vote for the "best man." Because he is a Republican or a Democrat or a Greenbacker or a Prohibitionist or an Anti-Monopolist, he is *not* bound to support the candidate of the party of his affiliation when he believes its candidate to be unfit. His conscientious scruples should lead him to consider the needs of the community above all personal or party relations, and the "best man" in the field for the place should receive his vote.

It is not so very difficult to choose the

better man of two contending parties. A little quiet investigation will elicit sufficient information on important points in the character of a man. We need but to know something of his conduct in his home and family, how he is regarded in his store or office by clerks and associates, and what reputation he bears among men of his calling.

We regret the license of political warfare in its tendency to blacken and defame opposing candidates for office, but this license permits us to ascertain the truth, since it puts men on their defence and challenges their integrity. If the bearing of a nominee be firm and consistent amid the storm of detraction raised by enemies, it counts greatly in his favor, and they who are in doubt may accept it as a strong point.

ECENTRIC PEOPLE.

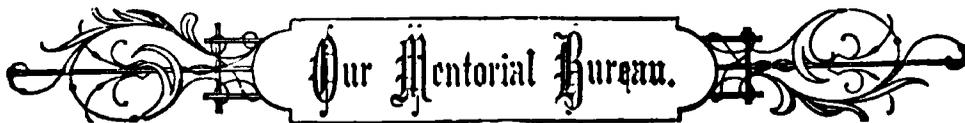
ONE of our leading Monthlies has taken occasion to venture some remarks upon those members of society who go by the term "eccentric"; and the writer is inclined to condemn them somewhat severely, as persons who are not only negligent of their obligations to society, but wilfully set themselves above law and custom. There are many people who obtain a reputation for eccentricity or queerness, whose peculiarity in this respect is due entirely to their unwillingness to be controlled by the usages of convention. Now the greater portion of the usages of society have very little foundation in reason or common-sense; people get into the fashion of doing things unconsciously, as it were; follow some leader, and have little reason to offer for their following, aside from the fact of his or her being prominent by

reason of wealth or family position. Those eccentrics who demand a reason for their doing this or that, besides the usual flimsy pretext, "everybody does so," ought to be respected rather than condemned. Anything that takes up our time or uses our strength in any degree should have a positive reason for its performance, and the simple excuse that "so and so does it, and therefore it must be right," is absurd. There is a reason for mere amusement or play, a sound practical reason that well-informed persons will accept, but the reader knows that there are many forms of amusement or entertainment that have no proper basis, and people engage in them merely to waste time; being without the pretext that they find nothing better to do, for they can, if they but pause and think a little. When a man or woman is said to be queer or eccentric by the rank and file of society people, in nine cases out of ten such person is not like other people, mainly on the score of independence of thinking, the disposition to act and speak from original points of view, to look beneath the surface of life and to question causes and motives; in short, possesses a character deserving of commendation. To be sure, there is an excessive manifestation of eccentricity that is reprehensible; there is an absurd affectation of superiority, obtuseness of insistance and pretence that are intolerable; and we would no more excuse it than we would that affectation of independence and originality which is nothing more than rudeness and ignorance and ill breeding. There are some who think that such people should be transported to a Botany Bay of their own, or have a section of Alaska set off for their special residence, and we are of their opinion.

DIET AND CHOLERA.—It is a notable fact that in modern epidemics, especially of cholera, the Jews almost entirely escape. This has been shown in a conspicuous way in the late pestilence at Toulon and Marseilles. According to the published accounts there are 4,000 of the Hebrew race in Marseilles, and of these, but seven were seized with this disease. Two of these seven were life-long invalids; another was ninety-seven years of age, and two others had not observed faithfully the Jewish law. *The*

American Hebrew of New York ascribes this comparative immunity to the dietary laws of Judaism, and lifts up its voice against "the unclean, offal-feeding things of sea and land" which Christian epicures prize so highly.

Our hygienic friends should feel an increasing assurance in the virtues of their methods, and people who are given to reflection should be at least disposed to make a trial of the Hebrews' principles of table-living. The precepts of Moses have a broader range than a single race.



To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, bring particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE contributions unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal matters will be considered by the Editor if this is done.

PHOTO-ENGRAVING.—J. B., Tasmania, —There are several methods, all of which are secured by patents. You would probably receive definite information about securing a right to use one by communicating with the Moss Engraving

Co., or the Photo-engraving Co., or the American Photo-engraving Co., all of this city. We do not control any process, but have work of that character done by one of the regular houses. The paragraph entitled, "New Feature," etc., was taken from English sources, and is all that we have learned about the idea therein mentioned. A process known as Pretsch's for making Photo-relief plates is described in the Printer's Circular, thus:

"A sensitive gelatinous mixture is prepared by dissolving six parts of gelatine in thirty parts of water, and one part of powdered ammonium bichromate is stirred into the solution. A piece of plate glass, which is all the better for having been previously coated with a collotypic substratum, is now levelled in the drying cupboard—a temperature of about 40 Centigrade being suitable in most cases. When the plate has reached the full temperature of the hot cupboard, some of the gelatine preparation is poured on and spread with a strip of paper, about thirty grains being allowed for each square inch of surface. When the plate is dry it is exposed under a negative, about six times the exposure which would be required for a silver print being given. When the exposed plate is soaked in water, the reticulation and granulation of the gelatine rapidly set in, and in a few minutes an exact reverse of the required printing-block will be the result. The next step is to allow the plate to become partially dry, and to deposit copper on it by the electrotype process so as to form the printing-block. It is, perhaps, a more certain proceeding to take an impression from the reticulated film by means of softened gutta-percha, and to send this cast to an electrotyper or a stereotyper to be reproduced in metal."

SELFISH AND HARD-HEARTED.—J. M. M.—The characteristics of one who is known to be selfish and hard-hearted as shown by the organism, are generally a head that is broad between the ears, strongly marked in the lower back region, broad in the temple spaces, rather prominent in the forehead, as men of the class average, strongly marked in the back part of the crown, and falling off rapidly in the top-head forward to the intellectual region. Viewed from the back, the head has a conical outline, with a marked fullness in the lower lateral spaces. Viewed from the front, the anterior temporal ridges appear contracted, but a little back of these ridges, the head fills out rapidly so that it is well rounded a little above and in front of the ears. There is a decided flatness noticeable in the upper front part of the crown, in the region of Imitation and Spirituality; but Ideality and Sublimity may be well marked, and the person may possess a good degree of artistic taste.

The temperaments may be fairly balanced, but, as a rule, the tendency is toward the lymphatic, or what may be termed a morbid phase of the vital and motive. In the worst cases of such a type there is a flabbiness in the physical make-up that unpleasantly impresses at first sight; but this, however, is usually associated with some culture and refinement. People of little education, who are notoriously selfish and exacting, are known for want of flesh. They have a lean and hungry look, are bony, knobby, with prominent cheek bones, strong noses, and projecting chin, while the eyes have a severe and glassy expression.

FRONTAL-SINUS AGAIN.—E. J. M.—One of the earliest objections made to the integrity of Phrenology was founded upon the relation of the frontal-sinus to the brain, and it is one of the latest. We could answer, or consider it in nearly every Number of our Magazine. Just as you write us, others write that some "respectable physician" has pointed out an inconsistency or irregularity in the matter of the predications of Phrenology as related to certain organs of the frontal lobes, lying adjacent to those spaces between the tables of the skull that are called frontal-sinuses. The objection is made only by those who are unacquainted with the details of phrenological anatomy. All educated Phrenologists admit the existence of the frontal-sinus in the majority of crania, and that in some cases their extent may be such as to offer some obstacle to the accurate diagnosis of a few organs at the anterior margin of the frontal lobes. As a general rule, the utmost that the sinus can affect are five organs, Form, Size, Weight, Eventuality, and Locality, and a skillful Phrenologist can determine with a good deal of accuracy the extent of the sinus by the exterior development of the super-orbital ridges at the interior angle of the eye. We have examined many skulls with regard to the frontal-sinus, and insist that the Phrenologist who

is conversant in a moderate degree with the cortical relations of skull and brain, need not err widely in his interpretations of organic development. Further, we will say that the Phrenologist who would attempt to examine heads without such knowledge, should be more distinguished for audacity than maturity of judgment.

STUDY OF THE LAW.—Z. Z.—It were best for a young man who contemplates the study of the law, in the outset to read some introductory treatises upon the subject; for instance, Hoffman's "Legal Study." A late edition will give him an idea of the range of the subject. Walker's "Introduction to American Law" is also appropriate. Then following out the suggestions he will obtain from such authors, he may proceed to read the fundamental text-books. The advice of a well-read lawyer will be of great value to the student, and it were best for him after he has attained an insight into the theory of jurisprudence, to get a place in a lawyer's office, where he can associate study with practice, and after a year or more thus spent, a course in a well-ordered law-school should be taken.

HORIZONTAL WRINKLES BETWEEN THE EYEBROWS.—H. M. A.—Some of the authors on Physiognomy are of the opinion that wrinkles at the root of the nose extending in a direction at right angles to the nose, indicate will-power, decision, ability to exercise authority, superintend the operations of others and take the lead. It is claimed that most eminent generals have such wrinkles.

ALWAYS IN A HURRY.—C. V. M.—Those unfortunate people who seem to "live on the fly," are always in a hurry, have inherited a temperament that inclines them to excessive activity, and circumstances besides from childhood up, have conduced to a growth and strength of the habit of irritability. They usually have a predominance of the mental temperament, an organism that is excitable, or readily responsive to impressions. The perceptive faculties of the intellect are usually the larger.

ORATORY AND MEMORY.—O. S. F.—The book "Oratory Sacred and Secular" gives practical rules for the exercise of the voice and the intellect in elocution. It furnishes suggestions that are helpful, also, in strengthening the memory; although the book makes no special point of that. Numerous treatises have been written on the subject of memory culture, but there are no rules of a technical character that can be depended upon for effectiveness in a given case. Study in a systematic, regular way, continued for months and may be years, while it improves the mind as a whole, serves to strengthen the memory; development of the intellect in itself strengthens memory. At the basis one must have good health for a tenacious and ready recollection.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

IMITATING OTHERS.—It would appear a very ridiculous thing for a straight, well-built man to order his coat cut by the pattern of a hunchback; but not more ridiculous than things we daily find ourselves guilty of—things that we are not honest enough to own to ourselves, but which exist nevertheless—speaking of our every-day actions, and often looking as much out of place as the hunchback's coat, stretched across the shoulders of the man minus the hump. There goes a man—a great man; one that everybody looks up to. He has a habit of *drawing*. We are seized with such a fit of admiration (?) for the man that we go to drawing too, and wonder why people don't look up to us.

Another, a friend, from whom we consider ourselves inseparable, has a peculiar combination of a twinkle and a smirk, which we pronounce "quite killing"; and we, accordingly, as in duty bound, begin a series of squints and smirks, feeling very much surprised that people don't seem in the least impressed with the cuteness of our performances, except, perhaps, to ask us what we are making faces at. The reason so many people are failures is found in the fact that they throw away their individuality and try to be somebody else. Thousands and thousands of people are miserable burlesques of somebody else, — having no fixed principles of their own,—forever revolving around some one else, and reflecting the light of some other countenance, smiling when it smiles, frowning when it frowns, and accommodating themselves to all the changes of caprice as faithfully as the weather-cock to all the changes of weather.

We suppose the disposition to imitate what we see is owing to that propensity of our monkey ancestry. We certainly would not chide any one for making use of so legitimate a propensity. It is not the *use* of the faculty we object to, but the abuse of it. The ability to appropriate that which will enrich ourselves and defraud no one is certainly not censurable, but it requires a world of discrimination to decide just what is worth appropriating, and a vast deal of the same thing to decide whether we can splice it on ourselves without showing the *seam*. Such splicing is always dangerous. It is better and safer to adapt the amendments to our conduct on the inside rather than the outside, and leave the effect to manifest itself naturally. Such adoption is legitimate and safe. Hamlet's advice to his mother, "Assume a virtue if you have it not," sounds well (if we except the fact of its being his mother he so addressed), but it don't go deep enough. Virtue would soon go at a discount, if

we merely assumed what is lovely in others without planting the seed of the principle in our lives. Such assumption would appear as ridiculous as the little boy in his papa's silk hat.

While we are thankful for all helps and examples, let us not lose *ourselves* in our endeavors to do and be something. If some one else is witty, don't let us make such guys of ourselves as to set up for wits without capital. If some one else is profound, let us not drown ourselves in a deep subject to appear profound too. All such attempts will result in the humiliating and dearly bought knowledge that, though we might have succeeded as rational men and women, we are far from a success as monkeys.

SUE GREGORY.

"A MOTHER TO OTHER MOTHERS."—

Under this title I read with pleasure in the February Number of this magazine an article by Elizabeth Porter Gould, endeavoring to show to mothers the desirability of telling their children of those functions of womanhood that all must learn sooner or later, either ignorantly or otherwise. And how my heart went out toward this *true* mother as my mind wandered back through a lapse of years, to an evening never to be forgotten, when my own darling mother took me, a boy of twelve, into her room and told me of these self-same things. I can see her even now, as she bent over the tiny garments that ere long were to clothe the little, helpless soul whom "God would send to us"; and her dear, kind eyes so full of love. And oh! what a blessing it has been to me ever since! Oh, mothers! How little you know of the fruit "a word fitly spoken" may bring forth! And who, if not the mother, should tell the child of these things?

Mothers! which do you choose, that your child should learn of these things from your lips? or must your boy hear of them from ignorant companions, or the obscene lips of a low-toned hired-man? Must your girl, your rosy-cheeked darling, just budding into womanhood, must her mind be blighted by the idle talk of her companions, or of servant-girls whose morals are far from being as pure as you would wish? How often have I heard boys of tender years speak of these things as though they were to be made the butt of vulgar jokes!

Think of hundreds of boys growing into manhood with the false belief "that one-half of the human race was created for the sensual gratification of the other half!" Time and again have I heard this statement made. And, mothers! it is being taught to *your* boys.

Is it at all wonderful that so many of our young men grow up gross sensualists, that foul crimes are committed, that our daughters are led astray, when our young men are permitted to grow up under the worst of influences? I know it must be hard for most mothers to talk freely to their children of such things; but self should be laid aside, and duty to one's child, and truth only thought of.

Once more I appeal to you, as a son, as a brother, in behalf of the rising generation. I appeal to you, dear mothers and sisters, to resolve to tell your children, or to place good books in their hands that will lead them on and up to a higher, nobler, purer manhood and womanhood; and then you may hope to see them growing up to gladden your old age, "and nations shall rise up and call you blessed."

H. J. MUNRO.

J. B. I., of Henderson, Tenn., says in a late note: "Could not do without the JOURNAL. I am a better man, a *weller* man, a wiser man, by perusing the PHRENOLOGICAL JOURNAL."

PERSONAL.

J. B. GRINNELL, for whom the town of Grinnell, Iowa, was named, says: "In Grinnell there are no saloons, and no one has been sent to jail, to the poorhouse, or to the penitentiary for twenty-five years. We can stand a cyclone occasionally if you will keep whisky away." No doubt of it.

M. CHEVREUL, the distinguished French chemist, was much offended when it was proposed to relieve him of his duties as director of the Gobclins manufactory and place him on the retired list. Retired? And why? Because of his age, they said. Age? he replied. Why, he was only ninety-eight! Did they call that old? He would teach the babbling boys of fifty and sixty better things than that. M. Chevreul is a teetotaler, a spare eater—taking only two meals a day, and lectures still in the University of Paris.

HENRY GEORGE BOHN, long celebrated as an author and publisher of valuable books, died last August in London. He was born in January, 1796. He grew up among books, not in an alcove of a library, but in his father's store, where he commenced active life as a salesman, after obtaining an education. In 1831 he began the book business on his own account, and ten years afterward issued his "guinea catalogue," exhibiting the largest stock ever collected by a bookseller.

AND now it comes about that the credit of discovery of the cholera germ is disputed, the Italians claiming it for a countryman named Filippo Pacini. He published in the *Italian Medical Gazette*, in 1854, a treatise on the cholera, in which he says the disease was due to "a very simple organism which I shall call a choleraic microbe." The treatise was translated into French and into English, and was republished in 1865, 1866, 1891, and 1879.

HANS MAKART, the great Austrian painter, died early in October. He was impressed with the delusion that his head was a color box, and that if he could extract the pigments from their case he would achieve the greatest work of art that the world has ever seen. The physicians, however, did not con-

sider his insanity hopeless at first, and insisted upon a cessation of his labors, and some months of absolute idleness; but in vain. He will be remembered as an important contributor to the art collection at our Centennial Exhibition.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

RICHES got by deceit cheat no man so much as the getter.

A MAN'S trials can not be insufferable if he lives to talk about them.

THROUGH trials one may gain incomparably higher good than through indulgence and ease.

LA guerre est le procédé que les tyrans emploient pour empêcher le peuple de songer à ses droits. "Le Devoir."

IT was a good piece of advice given by a sergeant-at-law to a counsellor, that he should not "show anger, but show cause."

NOTHING expands the mind like an active participation in some form of work. Education and idleness are incompatible.—*Prof. Swing.*

THERE are two things which ought to teach us to think but meanly of human glory: the very best men have had their calumniators; the very worst their panegyrists.

HE who takes a glass of water may well feel joyous, for he swallows what has, in its various forms, made more melody upon the earth than the greatest musician that ever lived.

A UNIVERSITY is not to train students merely as lawyers, physicians, clergymen, engineers, merchants, and statesmen, but as men; and the best thing the university can do for them is to form in them what we will call the philosophic mind.—*Prof. Bryce.*

IN vain
Ye call back the Past again,
The Past is deaf to your prayer;
Out of the shadows of night
The world rolls into light;
It is daybreak everywhere.

MIRTH.

"A little nonsense now and then
Is relished by the wisest men."

AUTUMN LEAVES—when winter comes in.

HOW does Pat get over single-blessedness? He proposes to Bridget.

"It seems to me that the lard is diminishing rapidly, Mary," said the mistress to the servant-girl. "Yes'm," was the reply of the maid; "but then you knew when you bought it that it was short-ning."

CUSTOMER with a red nose—"Yes, I want the hat to be of just that size." Hatter—"But, my dear sir, it will be unbecoming: so very large, you know." Customer—"Hush! make it that way, I tell you, I want people to think my head is big."

"SHALL I sing, 'When the robins nest again,' darling?" she asked, with a sweet smile. "Yes, love," he replied; "but allow me to call your attention to the fact that the robins won't nest again till next year." She did not sing, and he doesn't go there any more.

AN Indian on being asked what he was doing now, answered, "Well, I hunt some, fish some, and preach some." "Where do you preach?" "Up on the creek bottom." "How much do they give you?" "'Bout fifty dollars a year." "That's mighty poor pay, isn't it?" "Well, but it's mighty poor preach."

"DOCTOR, I want to thank you for your great patent medicine." "It helped you, did it?" asked the quack, very much pleased. "It helped me wonderfully." "How many bottles did you find it necessary to take?" "Oh, I didn't take any of it. My uncle took one bottle, and now I am his sole surviving heir."

"THE lady is handsome, but she looks as if she had a temper of her own," remarked one drummer to another on a train. "You bet! You read character correctly," was the reply. "Why, you speak as if you were acquainted with her!" "Well, I am slightly. I married her some ten years ago and have been studying her ever since."



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

THREE VISITS TO AMERICA. By Emily Faithfull. 12mo, pp. xii, 40. Cloth, price \$1.50. Published by Fowler & Wells Co., 753 Broadway, New York.

The author of this volume needs no introduction to an American public; her work in behalf of struggling women during the past twenty years has been attended with so much success that she has acquired

wide-spread celebrity in spite of herself. Her three visits in this country were made for the purpose of studying our society, our industrial methods and organizations in behalf of poor and unfortunate English women, and the record of these three visits is not a rush into print to gratify personal motives merely, or to let the world know "my impressions of America," after the style of so many foreign tourists, but the notes of a warm-hearted, practical observer who is in earnest for the improvement of the condition of her fellow-women, and gives her best experience in the tracings of her pen. Few writers on America have seen so much of our country, talked with so many of our best people, and looked so deeply into our social habits and institutions; and as she relates the notable incidents of her journeys in a lively, agreeable manner, showing everywhere the woman of exuberant good-nature, the reader is captivated at the start. One finds himself newly interested in things that he deemed familiar; reads about men and women of whom he has frequently heard, but finds them set in new lights and phases, differently photographed, as it were. Sketches of conversations occur all through the book, most of them with well-known people, all of whom cordially aided Miss Faithfull toward the attainment of her mission. It is pleasant to read her lively comments on such persons as Charles Sumner, Julia Ward Howe, Professors Coit Tyler and Maria Mitchell, George W. Childs, Charlotte Cushman, John Taylor the Mormon President, Thurlow Weed, and the hundred others she met. But what will most interest the American reader are the chatty comparisons made of our social mannerisms with those of old England, and the tendencies that she thinks are clearly to be seen in popular sentiment as concerns trade, government, labor, the woman question, art, and so on. The eminent utility of what Miss Faithfull says here and there makes the book valuable, and therefore desirable; while it will entertain every one who takes it up, it will be sure to instruct those who are thoughtful.

THE CHILDREN OF THE BIBLE. By Fanny L. Armstrong. With an Introduction by Frances E. Willard. Pres. N. W. C. T. U. 18mo, pp. 275. Extra Cloth. Price \$1. New York, Fowler & Wells Co., Publishers, 753 Broadway.

The mind of the modern child is ever hungry for entertainment—the hunger is impressed at birth—and writers and publishers everywhere appear to be doing their best to meet its demands and stimulate its further growth. What multitudes of stories are announced each year, and how few of them are suitable for the reading of our bright girls and boys! What they need is lively, entertaining tales that teach them useful truths, truths so simply illustrated that they can grasp their full meaning, and appreciate their great importance to them if they would live noble, upright, happy lives. Miss Armstrong has drawn on that richest of moral sources,

the Bible, for her topics, and with rare tact prepared this volume of stories for children. She knows the kind of setting that is needed to make each beautiful incident attractive to young minds, and she finds something of peculiar interest in every Bible child's life from Ishmael to Timothy. Miss Willard's testimony is very valuable to the writer, and to the publishers perhaps, but we think that they who open the book and read two pages of the story of Ishmael will not be content until they have finished with Timothy and the convenient little Glossary of names at the end. It is just the kind of book for the home table and the Sunday-school library, and should be in the hands of all Sunday-school teachers.

'49. THE GOLD-SEEKER OF THE SIERRAS.

By Joaquin Miller, author of "Memorie and Rime," "Songs of the Sierras," etc. No. 123 of Funk & Wagnalls' "Standard Library." Price 15 cents.

It goes almost without saying that Joaquin Miller is one of the foremost among the writers of the day. His latest work, "'49, The Gold-Seeker of the Sierras," is perhaps as characteristic a work as the author has ever written. It is a story of the Western mines, and abounds in strong dramatic situations, swift alternations between pathos and humor, and delicate poetic interpretations of nature. There can be no doubt in the reader's mind that the story is drawn largely from real life. Bold, realistic touches impart strength and intensity to the romance and render the book very engaging.

PUBLICATIONS RECEIVED.

ADDRESS by the Rt. Hon. Lord Rayleigh, President of the British Association for the Advancement of Science. This document has been received from our friend Dr. Ross, of Montreal, and is interesting as a comprehensive review of scientific work in the important departments of Physics, especially of Optics and Electricity. From the same hand we have received a Second List of Resident and Non-resident Members and Associates of the British Association.

THE ECLECTIC MAGAZINE OF FOREIGN LITERATURE, in its later Numbers, shows taste, intelligence, and care in the selection of its subjects. The strongest pens are illustrated. Our friend, the editor, can scarcely be in sympathy with the notices of certain manufactures that appear opposite to the table of contents in the September Number.

THE CENTURY MAGAZINE, for October, contains several voluminous papers, that are not only attractive because of their rich designs, but because of their permanent literary value. For instance, Social Conditions in the Colonies, The Odyssey and its Epoch, The Sun's Surroundings, Lights and Shadows of Army Life. The last mentioned will please many readers who had glimpses of life in the late war, etc.; its sketches are realistic enough.

HARPER'S MAGAZINE, for October, is in no respect below its high average, and has, among the more noteworthy topics, The Home of Hans Christian Andersen, The Great Hall of William Rufus, Artist Strolls in Holland, and an article not unlike Lights and Shadows of Army Life in *Scribner's* entitled The Home of Tommy Atkins, although the camp life described in this case has its locale in England, and is of a peaceful nature. The Gateway of the Sierra Madras is striking with its representations of Mexican architecture.

THE PUBLISHERS' WEEKLY, in its Fall Announcement Number, contains a long list of new books. It is wonderful to contemplate the growth of the book-trade in this country; nothing illustrates it so well as the numerous Weeklies and Monthlies devoted to the announcement of recent and projected books. Yet there are some who insist that "trade" is dull.

OGILVIE'S POPULAR READING, No. 10, contains seven stories, by popular authors. Among them, "Wife in Name, Only"; "First Love is Best"; "No Cards, no Cake." Paper, 30 cents. J. S. Ogilvie & Co., New York.

THE MISSIONARY REVIEW, published at Princeton, N. J., under the management of the Rev. R. G. Wilder, deserves the support of the Christian public, as it is an excellent organ for missionary interests, furnishing the American churchman with recent data concerning the operations of missionaries at home and abroad. Terms but \$1.50 a year.

OUTLINES OF A MODIFIED PHONOGRAPHY. By George R. Bishop, stenographer of the N. Y. Stock Exchange, late President of New York State Phonographers' Association, etc. In this pamphlet Mr. Bishop condenses the results of many years' observation and experiment in relation to an object he has long entertained, "A more definite and easy mode of representing the vowel sounds in connection with the consonant signs as now used in phonography." The central idea has been to construct a system of vowel signs to which hooks, loops, and circles could be attached in a manner similar to their use in connection with consonants. This idea we think is quite original with Mr. Bishop, at least in its evolution as a systematic proceeding, and we think that his pamphlet will be found of practical value to phonographers generally. Mr. Bishop is not only a very skilful reporter, but he has been a careful student of language for many years, and his opinion on any question connected with stenography is deserving of consideration.

OUR LIFE AND HOME is the title of a new monthly magazine published at Salt Lake City. The editor, C. H. Bliss, appears to be a cordial friend of mental science, from the practical articles on the subject appearing in his publication.

PEARS' SOAP

A PERFECTLY PURE SOAP • IT KEEPS THE PORES OPEN, THE COMPLEXION CLEAR, AND THE HANDS AND SKIN SOFT • A VERY DURABLE SOAP •



THE WORLD RENOWNED

ENGLISH COMPLEXION SOAP

ESTABLISHED IN LONDON 100 YEARS, INTERNATIONAL AWARDS FIFTEEN

A BRIGHT HEALTHFUL SKIN AND COMPLEXION ENSURED BY USING **PEARS' SOAP.**

AS RECOMMENDED BY THE GREATEST ENGLISH AUTHORITY ON THE SKIN, PROF. SIR ERASMUS WILSON, F. R. S., PRES. OF THE ROYAL COL. OF SURGEONS, ENGLAND, AND ALL OTHER LEADING AUTHORITIES ON THE SKIN.

COUNTLESS BEAUTEOUS LADIES, INCLUDING MRS. LILLIE LANGTRY, RECOMMEND ITS VIRTUES AND PREFER **PEARS' SOAP TO ANY OTHER.**

The following from the world-renowned Songstress is a sample of thousands of Testimonials:

Testimonial from Madame ADELINA PATTI.

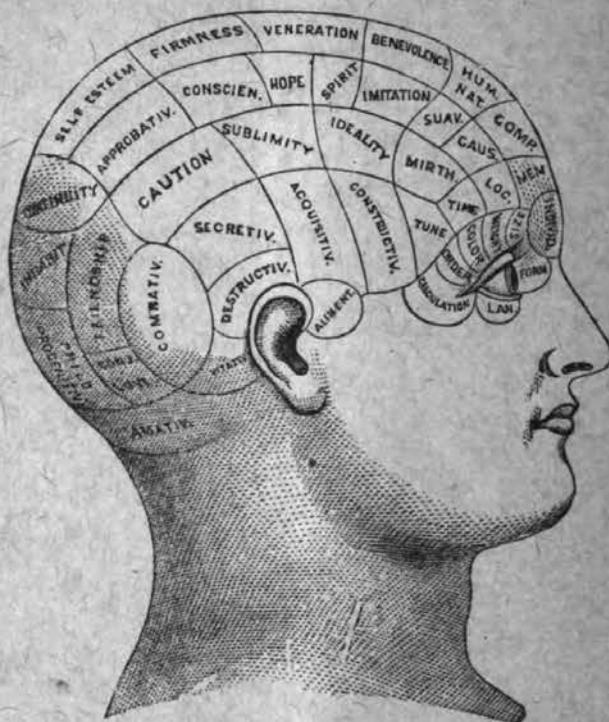
"I HAVE FOUND IT MATCHLESS FOR THE HANDS AND COMPLEXION." *Adelina Patti*

PEARS' SOAP IS FOR SALE THROUGHOUT THE CIVILIZED WORLD.

A Choice of Premiums.

THE PHRENOLOGICAL CHART.

A handsome symbolical Head, made from new and special drawings designed for the purpose. The pictorial illustrations show the location of each of the phrenological organs, and their natural language. It will help to locate readily the faculties, and at the same time give a correct idea of their functions. The Head is about twelve ins. wide, handsomely lithographed in colors and on heavy plate paper about 19 x 24 ins., properly mounted, with rings for hanging, or may be framed, and will be very attractive wherever it is seen. Price, \$1.00. Is given to each subscriber, or the Bust Premium.



THE PHRENOLOGICAL BUST
 This bust is made of plaster of Paris, and so lettered as to show the exact location of each of the Phrenological Organs. The head is nearly life-size, and very ornamental, deserving a place on the centre-table or mantel, in parlor, office, or study, and until recently has sold for \$2.00. This, with the illustrated key which accompanies each Bust, should be in the hands of all who would know "How to Read Character." It is now offered as a Premium to each yearly subscriber to THE PHRENOLOGICAL JOURNAL, or we will send the Chart Premium.

THE!

PHRENOLOGICAL JOURNAL

Is widely known in America and Europe, having been before the reading world nearly fifty years, and occupying a place in literature exclusively its own, viz., the study of HUMAN NATURE in all its phases, including Phrenology, Physiognomy, Ethnology, Physiology, etc., together with the "SCIENCE OF HEALTH," and no expense will be spared to make it the best publication for general circulation, tending always to make men better physically, mentally, and morally. Parents should read the JOURNAL, that they may better know how to govern and train their children. Young people should read the JOURNAL, that they may make the most of themselves. It has long met with the hearty approval of the press and the people.

N. Y. Tribune says: "Few works will better repay perusal in the family than this rich storehouse of instruction, which never fails to illustrate the practical philosophy of life, with its lively expositions, appropriate anecdotes, and agreeable sketches of distinguished individuals."

N. Y. Times says: "THE PHRENOLOGICAL JOURNAL proves that the increasing years of a periodical is no reason for its lessening its enterprise or for diminishing its abundance of interesting matter. If all magazines increased in merit as steadily as THE PHRENOLOGICAL JOURNAL, they would deserve in time to show equal evidences of popularity."

Christian Union says: "It is well known as a popular storehouse for useful thought. It teaches men to know themselves, and constantly presents matters of the highest interest to intelligent readers, and has the advantage of having always been not only 'up with the times,' but a little in advance. Its popularity shows the result of enterprise and brains."

Sunday-School Times says: "A great amount and variety of useful and instructive matter finds its way into this PHRENOLOGICAL monthly. It is progressive and liberal, in the good sense of those terms—a readable, valuable journal."

TERMS.

The JOURNAL is published monthly at \$2.00 a year, or 20 cents a Number. To each yearly subscriber is given either the BUST or Chart Premium described above. When the Premiums are sent, 15 cents extra must be received with each subscription to pay postage on the JOURNAL and the expense of boxing and packing the Bust, which will be sent by express, or No. 2, smaller size, or the Chart Premium, will be sent by mail, post-paid.

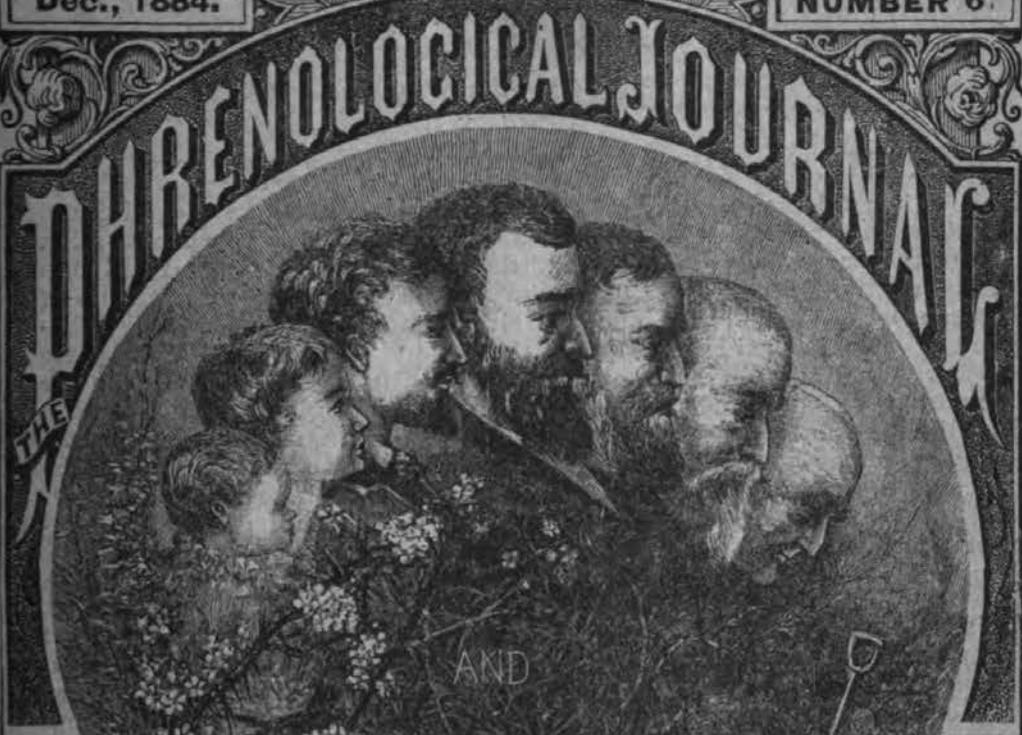
Send amount in P. O. Orders, P. N., Drafts on New York, or in Registered Letters. Postage-stamps will be received. AGENTS WANTED. Send 10 cents for specimen Number, Premium List, Posters, etc. Address

FOWLER & WELLS CO., Publishers, 753 Broadway, New York

Old Series, Vol. 79
Dec., 1884.

KNOW THYSELF.

New Series, Vol. 30
NUMBER 6.



AND
SCIENCE OF HEALTH

A Monthly devoted to the study of man in his mental and physical relations.

TERMS: For 1 year, \$2; 8 months, \$1; Single Numbers 20 cts.

CONTENTS.

- I. Zygmund F. Milkowski, the Polish Patriot and Author. Port. . . 313
- II. Organic Cerebration, VII.; Semi-Intellectual Sentiments. Illus. . . 324
- III. The Christian Church, No. 2; Its History and Divisions. Continued. . . 336
- IV. Progress. An Evolutionist's View. . . 331
- V. Mery and its People. Illus. . . 333
- VI. Cagliostro as a Medium. . . 341
- VII. The French in China. Portrait of Admiral Courbet . . . 342
- VIII. Old Superstitions . . . 343
- IX. A Well-Dressed Woman . . . 345
- X. Prevention of Decay of Teeth . . 346
- XI. Individuality in Relation to Physiology . . . 349
- XII. Why Women Break Down . . . 351
- XIII. Animals as Physicians . . . 354
- XIV. The Scourge of Quackery . . . 356

provement in Fencing; Coal and Window-glass Known to Romans; A Natural Whispering Gallery; Our Growing Wants; One of the Oldest of Human Skulls; The Metric System Not Better than the Old; Care of House Plants; Roaches, Red Ants, etc., Expelled; The Clock in Trinity Tower; Reducing Bones for Compost 357

Poetry.—The Station Buffet; "What Has Been Will Be."

Editorial Items.—The Sixth Sense; Helping Others; Business Perversion; Young Women as College Students 361

Answers to Correspondents.—Unwise Talk; Unsuitable Diet; Singular Surgical Case; Corn Cure; Pain Under the Shoulder; Fruit-Eating. WHAT THEY SAY.—An Expression of Gratitude; Keep a Scrap-Book 366

Personal.—Wisdom.—Mirth.—Library.

Notes in Science and Agriculture.—Sorghum's Value as a Saccharine Element; Marvellous Engineering; Im-

ENTERED AT THE POST-OFFICE AT NEW YORK AS SECOND-CLASS MATTER.
FOWLER & WELLS CO., Publishers, 753 Broadway, New York.
L. N. FOWLER, Imperial Buildings, London, England.

Send One New Name with Your Own.

PHRENOLOGICAL JOURNAL.

PREMIUMS FOR 1885.

A NEW PHRENOLOGICAL CHART.

This is a handsome Symbolical Head, made from new and special drawings designed for the purpose. The pictorial illustrations show the location of each of the phrenological organs, and their natural language. It will help to locate readily the faculties, and at the same time give a correct idea of their functions. The Head is about twelve inches wide, handsomely lithographed in colors in the highest style of the art, and printed upon heavy plate paper, about 19 x 24 inches, properly mounted, with rings for hanging on the wall, or it can be handsomely framed and placed under glass when desired.

It will be presented to yearly subscribers to the PHRENOLOGICAL JOURNAL (\$2.00), whether new or old. When sent by mail, we must receive 10 cents extra, to cover the cost of mailing the premium and the postage on the JOURNAL, which is sent prepaid, or the chart alone will be sent by mail, post-paid, on receipt of price, \$1.00. (Will be ready for delivery November 10th.)

THE PHRENOLOGICAL BUST.

This is one of the best possible aids to a proper understanding of the exact location of the Phrenological organs. It is so lettered as to show them separately on one side and in different groups of organs—moral, intellectual, executive, and social—on the other. It is handsomely made in white plaster, and very ornamental. An ILLUSTRATED KEY accompanies each bust, fully explanatory and giving such directions as to enable the reader to understand its use, including the names and the functions of each of the faculties. When sent, 15 cents extra must be received for packing and boxing. The large size (price, \$1.00) will be forwarded by express at the expense of the subscriber, or No. 2, small size (price, 50 cents), will be sent by mail, post-paid. We offer a choice of either of the above premiums to all subscribers for 1885.

A NEW OFFER.

All Book premium offers with subscriptions to the PHRENOLOGICAL JOURNAL are positively withdrawn now; but we make the following very liberal proposition to subscribers who will send new names. For each new yearly subscription to the PHRENOLOGICAL JOURNAL sent with \$2.00, by a person now a subscriber, we will give a copy of one of the following books: "The Diseases of Modern Life," a work on the avoidable causes of disease; by Dr. B. W. Richardson. Price, \$1.50. "Expression: Its Anatomy and Philosophy." By Sir Charles Bell. Price, \$1.50. The "Reminiscences of Spurzheim and George Combe." By Hon. Nahum Capen. Price, \$1.50. "Constitution of Man." By George Combe. Price, \$1.50. "Wedlock; or, The Right Relation of the Sexes." By Samuel R. Wells. Price, \$1.50. "A Bachelor's Talks About Married Life." By William Aikman, D.D. Price, \$1.50. "How to Read Character." Price, \$1.25.

These offers are made to present subscribers who send new ones, and no other books can be sent without extra payment; but any \$1.50 book of our own publication will be sent by payment of 50 cents extra. To the new subscriber will be given either the Chart or Bust Premium, as above.

Send amount in P. O. Orders, P. N., Drafts on New York, or in Registered Letters. Postage-stamps will be received. AGENTS WANTED. Send 10 cents for specimen Number, Premium List, Posters, etc. Address

FOWLER & WELLS CO., Publishers, 753 Broadway, N. Y.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.

VOL. 79. 1884.

NUMBER 6.]

December, 1884.

[WHOLE No. 552.



ZYGMUND FORTUNAD MILKOWSKI,

THE POLISH PATRIOT AND AUTHOR.

IN this portrait we see indications of a very strong constitution. The Motive temperament shows very strong features and a strong, bony structure; and

the brain being large, there is evidence of the Mental temperament, the two united, giving activity, intensity, susceptibility, positiveness, and power. The

Vital temperament, which, when well marked, gives fullness and smoothness and pliability to the constitution, is somewhat wanting in this man; his chief lack in constitutional development is the nutritive system.

He has evidence of first-rate lung power, as shown by the large nose and the broad and strong development outward from the nose. The strong chin indicates vigorous circulatory power, and decided tendencies to sociability and love. The falling in of the cheeks where digestion is represented, shows that that function is comparatively weak; and he has, on the whole, the appearance of an over-worked man, and at the same time of a man who is capable of doing that which would be over-work to most men, and yet not break down.

There are four or five distinguishing marks in his mental development. The reader will observe the prominent brow; the breadth and fullness in that region. He will also observe that there is great length from the opening of the ear to the forehead above the root of the nose; this shows length of fibre in the brain, and great intellectual sharpness and intensity. There are few men whose perceptive intellect has such scope, intensity, and definiteness as his. Hence his mind is rich in all that pertains to fact and incident. Experience to him brings a wealth of knowledge. If we ascend to the middle section of the forehead, where the organs are located which have to do with history, locality, time, and the power of containing and retaining scholarly languages, we find that his head resembles pretty closely that of the celebrated learned blacksmith, the late Elihu Burritt, who could read in fifty-two languages.

The upper part of the forehead shows

sharpness in the centre, and great height, bringing into view the faculty of Comparison most prominently, and especially that of human nature, or the power to appreciate and describe character, and to read it at sight. If the reader will observe the fullness in the region of the temples, he will see large Constructiveness, which gives the ability to combine and organize, to build and construct, and to invent. It is useful to mechanics who build architectural piles, or who construct machinery that is rich in complication, and is necessary to the poet and the novelist. It will also be seen that the head is broad above and about the ears, indicating power, force, policy, desire for property, and the ability to manifest these traits in his own character, or develop them in characters of which he may write or which he may create; and, as a writer he would make his characters, whether learned, intellectual, acute, or otherwise, forceful, politic, ingenious, and influential and present them with a vividness that would be startlingly real.

Such a head as this could never make a tame character in a story or drama. If he were to assign to a boy or man a position of holding a horse for the hero of a tale, he would give to that horse-holder certain positive, crayon touches of character that would make him remembered. If he were to write for the stage, every character in the different parts would be distinct and vivid. And it would be a natural criticism of a story or drama of his, that there were too many influential characters, too many high lights in his landscape, too much hill and mountain, and not enough valley, and plain, and lawn.

His head is high in the region of Benevolence. Under that tuft of front hair

from the eye, and from the ear to that point, the distances are great; hence he is full of Benevolence and sympathy; but having so much positiveness and force, his sympathy may be like a fair amount of sugar in some very strong lemonade. In other words, it needs all his tenderness and sympathy to soothe, and clothe, and shield the angular, pointed, and executive elements in his constitution.

His Self-esteem and Firmness we judge to be large; hence he is positive almost to a fault, imperious in his feelings, and fiercely defensive when his feelings are aroused, and he has a proper object of opposition; and his power to scathe his opponents, or to scourge his enemies with language intense, vivid, and fierce, would not often find a parallel.

We judge that he has strong social affection; his friends believe in him; and his enemies are likely to fear him if they do not hate him. He never can live in a community without being known as a force among men. As a poet and novelist, he is able to make good use of these strong qualities of character; and he will stand out upon a literary landscape as Mont Blanc and the Matterhorn assert their presence, fearless of obstruction.

Poland does not exist as an independent State. After a thousand vicissitudes, at one time recognized, at another repudiated, she has not, however, completely disappeared from the family of nations, although more than once dismembered and parcelled out to Russia, Prussia, and Austria. The situation of Poland to-day is very curious. The Czar assumes the title of King of Poland, without recognizing the Polish nationality; the Emperor of Austria assumes no title, but recognizes the nationality; while the Emperor of Germany does

neither. And yet, in spite of innumerable restrictions and persecutions on the part of both Russia and Prussia, the nation lives and is developing in every field of activity except the prohibited one of politics. Poland still participates largely in the intellectual, social, literary, and artistic life of Europe. This people, which diplomats have proclaimed to the world to be dead, possesses its own mills and manufactories, its own marts of trade, a distinctive character, savants, artists, and a complete literature, that, more than all else, indicates the vitality of a nation. And, it may be added, this literature, looked upon in the light of a misdemeanor by the Governments of Russia and Prussia, denounced on every possible occasion, watched by the police, pursued by the censor, endures, although unsupported by a single public school, by a single learned academy or literary society, which are replaced by Russian and German schools, academies, and societies. Polish literature draws its nourishment from the very soul of the nation—from the Polish people; it breathes and grows notwithstanding the neglect and oppression of the State.

It is, consequently, both interesting and useful to become acquainted with the representatives of this militant literature. I have chosen one as the central figure of this sketch. *Ex uno disce omnes*. My choice has not been governed by chance. I am personally acquainted with Mr. Theodore Thomas Jez, the Polish novelist, historian, publicist, and patriot. He is one of the most remarkable writers of Poland, whether we consider the current or the past literature of that country. Jez—pronounced almost like our English *yes*—is a *nom de plume* of more than ordinary significance. Hedgehog is the translation of the Polish *jez*, and the habits and characteristics of this little animal correspond exactly to the situation of a literature forced every moment to defend itself and to present a determined front to the attack of its enemies. "Touch me not," or the *nemo me impune lacessit* of the Scottish arms, is the motto of the

Erinaceus Europæus when he bristles up; but, the danger passed, the doughty hedgehog smooths his ruffled coat and continues peacefully on his way,—appropriate emblem of the literature represented by T. T. Jez, whose real name is Zygmund Fortunad Milkowski.

Milkowski springs from a family of the *petite noblesse*, a class that has played a very important part in the history of Poland. It was the equestrian order *par excellence*, composed of citizens who were, at one and the same time, farmers and soldiers, whose duty it was to govern and defend the Republic. In time of war, armed with a sabre, they mounted their horses; in time of peace, they followed the cart afield, without, however, laying aside the sword, the distinctive mark of their order. A noble, when too poor to buy a pair of boots, did not think himself disgraced if he went barefooted, but to be seen without his sword was most ignominious.

Milkowski's ancestors were all soldiers. One of them participated in the deliverance of Vienna from the Turks in 1683, alongside of the celebrated Polish hero and king, John Sobieski. His grandfather, John Milkowski, fought under the orders of Kosciusko. This grandfather was no ordinary character, and may be taken as a typical representative of the *petite noblesse* of old Poland. At the commencement of one of Kosciusko's campaigns, John Milkowski was pursuing his studies in a college directed by Basilian monks. He fell violently in love with a young girl of high family, escaped from the convent, eloped with the object of his passion, married her secretly, and joined the army. The young wife followed her adventurous husband in a baggage-wagon covered with a tent, in which vehicle were born successively a son, Joseph, father of Zygmund, and a daughter.

Joseph, in his turn, became a soldier. In 1809 he enlisted as a volunteer, fought against the Austrians in Galicia, and later took part in the campaign of 1812, that gigantic effort of the great Napoleon

to humble Russia. In 1820 he gave up arms for the plow, returned to his father's home on the banks of the Dniester, and married a high-born lady, Balbina Brudzevska, one of whose ancestors had been an instructor of Nicholas Copernicus.

The fruit of this marriage was two daughters and five sons. The eldest of the family, Zygmund Fortunad, was born in the village of Saraceya on the Dniester, on March 23, 1824, in the midst of a terrible equinoctial storm, which made the parental mansion tremble to the very foundations. The superstitious old women of the neighborhood predicted a tempestuous life for the baby. And their prognostics were destined to be fulfilled—a very natural consequence, however, for the child saw light in a land subjected to the most galling foreign domination, and issued from a class which formerly ruled the State.

From his earliest childhood, Zygmund was a witness of the oppression of his country. He was but six years old when the unfortunate insurrection of 1830 broke out, in which his father participated. This unsuccessful uprising was suppressed with a severe hand, and many Polish families were ruined. The Milkowskis did not escape, and the boy grew up in an atmosphere which affected his whole character. The vindictive policy of the Russian Government became more strongly marked every day. The Polish language was driven from the schools and courts; Russians were introduced into all the public offices; the peasants, who were Uniates, were forced to accept the State religion; Polish books and songs were tabooed, and, above all, the old nobility was proscribed.

Milkowski made his first acquaintance with the masters of Poland in 1838, when he was but fourteen years old. The introduction occurred at Niemirow, a little town of Podolia, where the gymnasium is situated in which young Milkowski was studying. He was accused of participating in a conspiracy. What danger to the mighty Russian Empire could there be in the machinations of boys, the oldest of

whom was only seventeen? But the Government looked at the matter differently. It began a regular trial before a judicial commission, appointed *ad hoc*, who took testimony and passed sentence. There were two principal charges. First, the organization of a society; second, the reading of prohibited poetry. The leader of this dangerous plot was condemned to transportation to Caucasia, there to serve, throughout his whole life, in the ranks of the Russian army. The other conspirators were driven from the gymnasium, and denied entrance into any educational establishment of the empire. Milkowski, because of his persistent denial of affiliation with the complot, the absence of all proof against him, his extreme youth, but, above all, because of the bribes which his parents did not hesitate to offer the judges, escaped from this first trial, although he was placed under police surveillance as a suspect. This disgrace, in Russian eyes, made the boy's school-days often very hard. But he went bravely on with his studies, and, notwithstanding systematic and petty annoyances, was promoted from class to class, until he was promoted from the gymnasium in 1843.

Milkowski chose Odessa rather than Kiew as his university, because at that time it was distinguished among the great cities of the empire for a relatively greater liberty. The students were subjected to a much less severe discipline there than at Kiew, Moscow, or St. Petersburg. There Milkowski was no longer "shadowed." The young man could continue his studies unannoyed, and even succeeded in carrying off a first prize at a competitive examination.

Milkowski devoted himself at the university to the physical and mathematical sciences, but also prepared himself to take a place in Polish literature while pursuing the exact sciences. This was contrary to the ordinary rule, but a still more remarkable irregularity was the following of his studies not only in a foreign tongue, but in a centre where everything which concerned his country,—language, literature,

history,—was placed under a ban as absolute as it was severe.

In his father's library the young student found the authors of the most brilliant epoch, the golden age of Polish literature (from the sixteenth to the end of the first half of the seventeenth century), and also the works produced during the regeneration of this literature (the last part of the eighteenth century). Here it was that he became acquainted with the celebrated poet Mickiewicz, whose genius fanned into a flame the sacred fire smouldering in the breast of every young man destined by nature to serve society with his pen. His first masters were his father, mother, cousins, friends. He wrote verses; but the encouragement and guidance, which a student of talent generally experiences in the university, Milkowski never enjoyed. The Russian schools cultivated a declared hostility for the Polish youth. Polish writers, therefore, were developed by opposition, by eating with avidity of forbidden fruit, by reading in secret the great prose authors and poets of the nation, by studying under difficulties the history and literature of their native land, by devouring with closed doors the publications smuggled from France. All this did Milkowski do instinctively, never thinking what use was to be made of it.

Milkowski gave special attention to mathematics, with the idea of utilizing his knowledge either as a professor or in the military career. He therefore went to Kiew in order to pass his final examination, and obtain the university degrees indispensable to everybody who would occupy a professor's chair. His sojourn at Kiew coincided with the year 1847-48: that is to say, the moment when all Europe was filled with revolution, when great thoughts filled the air, and grand principles revived old hopes. Could Milkowski remain indifferent to such appeals? University claims gave way to a conspiracy, and in order to better conceal his plan, he entered the engineering corps of the Russian army. But this did not remove all suspicion. The Kiew police got wind of what was going on in the

dark. They learned that Milkowski was one of the agitators who had kept back the nobles from signing the address of fidelity required by the Government at this time. He was, in fact, the author of a document, of which the students of the university made several copies, declaring a coward whoever should sign the address. An order for his arrest was issued, and the city searched. But he was informed of the danger, and, having obtained the assistance of the Jews for a certain sum of money, just succeeded in escaping from Kiew. He reached his father's house, bade his parents farewell, and a few weeks later put the Austrian frontier between his pursuers and the Russian police. He had passed from Poland into Poland, that part of the former kingdom under the domination of Austria, which at this moment—July, 1848—was passing through the crisis which ended by its existence as "Poland" being officially recognized.

At this moment, in the autumn of 1848, the Hungarian insurrection burst out. It was an uprising against one of the oppressors of Poland. This was sufficient to decide Milkowski. Without hesitating an instant, he left Galicia after a sojourn of three months within its borders, crossed in secret the Hungarian frontier, reached Pesth, and offered his services to Louis Kossuth, who was at the head of the revolutionary government. A Polish legion was in process of formation. Milkowski joined it as a simple private, and thus he became a soldier. The campaign lasted nine months. Milkowski participated in several battles, among which I shall only mention that of Szegedin, because of an event which happened there, and which shows the important part often exercised by small causes on the destiny of nations.

The Hungarians were retreating before the Austrian army, which was maneuvering in concert with a Russian force. The Hungarians, numbering sixty thousand, for the most part raw levies, were crossing the river Theiss. The passage of the troops began early in the morning, lasted

all day, and it was only toward evening that the Polish battalion, which formed the rear guard, and in whose ranks Milkowski served, approached the river. The sun was setting. Only one of the two pontoon bridges remained, and the sappers were busily engaged in destroying it. The Poles crossed in haste, and on reaching the other side were ordered to occupy some trenches farther on, leaving only a platoon to guard the bank. It was expected that the enemy would make a reconnoissance during the night, and perhaps try to rebuild the bridges. The duty of this handful of Poles was to watch and apprise the main body of any such movement. Milkowski was given the command of the little party. He had on his right the Maritza, which empties into the Theiss at this point in the midst of impracticable marshes, and on his left, a battery armed with a cannon. Milkowski placed his soldiers behind the big willows which skirted the bank. Time passed. The twilight was becoming fainter and fainter, when suddenly a large black spot appeared on the surface of the water, moving noiselessly along with the current. It was soon discovered to be a raft covered with soldiers. Milkowski gave the order to fire, and a shower of bullets poured in upon the defenceless enemy. The Austrians quickly pulled for the opposite bank, carrying with them their dead and wounded. Sometime afterward, Milkowski, on reading the history of the war, first learned that on this occasion he had driven back a strong reconnoissance led by Brigadier-General Benedek, who was severely wounded. This misfortune won for Benedek the sympathy of the Emperor. It was the beginning of the brilliant career of a man without military capacity, who, as commander-in-chief of the Austrian army in 1866, lost Sadowa and established Prussian hegemony in Germany.

Milkowski and two hundred of his companions decided to go to England, and embarked for Malta on a Turkish war vessel at that island. The Turkish Government withdrew its protection,

although it furnished the exiles a sum sufficient to charter a ship which should convey them to England. They soon after left on a sailing vessel, and when nine days out, during a stormy night, on April 19, 1850, struck on the rocks near a little port of Kabyles on the Tunisian coast. The weather was very bad; the wind blew a gale, and the rain fell in torrents, and the captain and his sailors, believing all lost, basely deserted the ship in the life-boat, and left the patriots to their fate. But with the first rays of morning they were discovered by an English merchantman, which sent a boat to their aid, and they were no sooner placed in safety on the beach than their vessel went to pieces.

The shipwrecked refugees spent three weeks on the Tunisian beach, and were finally taken back to Malta through the instrumentality of the Bey. They again left Malta, this time on one of the powerful steamers of the Anglo-Indian service, and reached Southampton without any further adventures.

Milkowski arrived in England absolutely penniless. The little bundle containing his clothing had been swallowed up by the sea, and his very last farthing was given for a ticket to London, so that he was set adrift in the vast city with an empty purse. Happily for him he had companions in misery, and one of them, who had a little money, offered him a place to sleep. The lodging was paid for two weeks in advance, so that Milkowski was not forced to spend the night out of doors.

But the imperative food question stared him in the face. He sought work in vain. Unfortunately he did not then understand English. This situation continued for more than a week, during which time he ate but twice, and then as the guest of some compatriots. The situation finally became so unbearable that the sufferer made up his mind to plunge into the Thames. While awaiting the hour for the fatal leap, Milkowski entered a reading-room where Polish newspapers were kept on file. He took

up a Warsaw journal, and was perusing it mechanically when his eye lighted on an advertisement of a London paper hanger and decorator who wanted a boy to sweep out the office, keep up the fires and to "make himself generally useful." He eagerly sought the situation, was engaged, and his salary fixed at the imposing sum of two shillings a day. A short time afterward, the office-boy received a check from his father, who little imagined the desperate situation of his son.

At the end of three months Milkowski had risen in the new business: he became a designer. His wages were likewise increased, and he had only to remain where he was to have gained an honorable and independent position. But the charms of literature and politics would not admit of this. He yielded first to the latter temptation.

At this time London was the principal centre in Europe of revolutionary intrigue. Political refugees from all countries of the Old World made the English capital their headquarters. There were found Frenchmen, Italians, Germans, Hungarians, and Roumanians. Here sat the executive committees of the Polish Democratic Society, and of the European Democracy, composed of such well-known agitators as Mazzini, Ledru-Rollin, Ruge, Bratiano, and others. Milkowski became an active member of the Polish Democratic Society. He attended all the meetings, took part in the discussions, read a great deal, worked hard, and soon began to publish articles in Polish in the columns of the *Polish Democrat*, the organ of the Society. This was his *début* as a writer.

The revolutionary leaders in London believed that it was impossible for France, the only great Republic in Europe, to stand alone surrounded on all sides by powerful monarchies. Poland, republican at heart, might be made a strong auxiliary not only of France but of the general republican movement on the continent. The Committee felt, therefore, that Poland should be ready to aid any revolutionary outburst in Italy or Ger-

many, and that, once independent herself, she would be able to guarantee the stability of the new order of things,—a republican organization of Europe, based on the fraternity of nations.

This grand and noble idea awakened all Milkowski's enthusiasm. He was delighted, therefore, to accept the proposition of the Committee that he should go to Poland and organize the general uprising planned for the moment of the election of a new President of the French Republic, for the term of Louis Napoleon was drawing to a close. He started for Poland, regardless of the danger of being arrested and condemned to the gibbet, or to the mines of Siberia. He obtained an English passport under a borrowed name, and began his journey across France, Turkey, and the Roumanian Principalities. In the autumn of 1851, he landed at Galatz, on the Danube, and in the winter of the same year crossed the Polish frontier disguised as a peasant.

Napoleon's *coup d'état* frustrated the hopes of European democracy. Milkowski knew it, but felt bound, nevertheless, to accomplish his mission, in view, if not of immediate action, at least of preparing the country for the moment when such action would be useful. He was quite successful in his efforts. Among those who entered into his plans with the greatest enthusiasm were his two young brothers, one of whom, Joseph, was performing his service in the ranks of the Russian army, while the other, Felix, was helping his father.

Milkowski could not resist the desire to see his parents, although by so doing he might compromise them and lose his own head. He, nevertheless, spent several weeks at the old home in the assumed character of a teacher looking for an engagement, and this was the last time that the son saw his father and mother. Bidding them a long farewell, Milkowski left for Moldavia, where he was to take up his residence near the frontier in order to be in easy communication with the revolutionists of Poland and foreign countries, and he remained

in Moldavia until rumors of war began to fill the air. During this time he studied the geography of the country, its language and customs. His brothers, fleeing before the vigilance of the Russian police, soon joined him there. But they met only for a moment. The three conspirators were arrested. Zygmund was saved by his English passport. But not so Joseph and Felix, who were handed over to Russia, tried and condemned, the first to be shot, the second to hard labor in Siberia.

Driven from Moldavia, he turned his steps toward Turkey, and landed at Toultscha, on the Danube, where he learned that his brother had been shot at Ismail. The shock was so great that his health, which had always been robust, gave way; a violent fever clung to him for several weeks, as he lay on a miserable straw bed in a humble peasant's hut, without any medical attendance. But he slowly recovered, and finally reached Constantinople, the centre of an agitation which held Europe in suspense during four years.

The Crimean war of 1853-'56 gave new hope to Poland. From the turn which this conflict took from the very start, the Poles had every ground to expect that the hour of their revenge had at last come. France, England, and Italy were armed against Russia, the sworn enemy of Poland. It was well known and openly admitted that the knot of the Eastern Question was on the banks of the Vistula, that the independence of Poland was essential to the equilibrium of Europe. The Poles, therefore, were eager to participate in the approaching struggle. They wished to take their place among the allies as one of the belligerents, and to organize a Polish army corps. But diplomacy was opposed to this. Poles were allowed to fight, but in the humiliating rôle of mercenaries. Turkey and England organized a Polish legion. But Milkowski preferred his independence to a well-paid post accepted on questionable terms. He obtained permission, however, from the Turkish gen-

eralissimo, Omar Pacha, to accompany the army as a spectator. In 1855 we find the subject of our sketch in Constantinople, where his life was almost a repetition of that at London, as already described. It was a ceaseless struggle to earn sufficient money to keep body and soul together. He was in turn book-keeper, architect, cook, teacher of languages, clerk in a store, and later in a statistical bureau. At this dark moment was revealed to him a vocation for which he had never suspected himself fitted. In this brave effort to keep the wolf from the door, Milkowski tried sending letters to the newspapers of Warsaw and Lemberg. His next step in this direction was a volume entitled "Souvenirs of a Vagabond;" followed by a political work, the "Participation of the Poles in the Oriental War," and a novel, "Basili Holub." His newspaper letters showed a talent quite original in thought and form, and even in language, which he had never studied with care, as the Polish was not taught in the schools. "The Participation of the Poles in the Oriental War" made Milkowski many enemies. His life was threatened, he received several challenges to fight duels, and the Turkish government was tempted to prosecute him for severe strictures which he had indulged in concerning the management of the war by the Sultan's staff officers. This treatment decided Milkowski to leave Constantinople for western Europe. He therefore went to Paris, and thence to London, whither he was called by his new duties as a member of the Central Committee of the Polish Democratic Society, having been elected to this post by the unanimous vote of his colleagues.

The only benefit which the Polish patriots had derived from the Crimean War was the death of the implacable Nicholas I., whose haughty spirit could not support the defeat of his armies. The feeble character of his successor gave new hope to the Poles; they felt that now was the moment to strike another blow for liberty. Milkowski found at Paris a large number of his fellow-

countrymen all bent on insurrection. An uprising in Poland had been decided upon as early as 1857, and the Italian war of 1859 hastened the crisis. The promoters of the dangerous enterprise only awaited a favorable opportunity to put into execution their long-matured plans. Milkowski was a member of the organizing committee that sat at Paris, and was in constant communication with the central committee at Warsaw. In the autumn of 1859, at the request of the members of the two committees, he went to Poland in order to superintend and hurry on the preparations.

In 1860 Milkowski accidentally made the acquaintance of Miss Sophie Wroblewska, daughter of a well-to-do citizen of Czortkow, and married her the next year. The wedding took place at Michayleny, a little town on the Moldavian frontier, where the young couple passed a twelvemonth. Michayleny became the centre of a widely-ramified conspiracy whose only issue was war, and which, in the words of Milton, wrought the Polish people "pain implacable and many a dolorous groan."

He was called to Warsaw in 1862 by the Central Committee. To obey the summons was to risk his life. Milkowski was now a father, his first child, a daughter, having been just born to him. But he did not hesitate. He started, crossed the frontier clandestinely, remained some time in Warsaw, and returned bearing with him the commission of commander-in-chief in the Ruthenian Provinces.

The date fixed for the uprising was May, 1863. But unfortunately for Poland it occurred five months earlier. Milkowski was heart-broken. Neither he nor his friends were prepared. But he hastened to the front, leaving wife and child behind him. Insurmountable difficulties arose on every side. Nothing was ready. Milkowski reluctantly sent in his resignation as commander-in-chief, not wishing to assume the grave responsibility which this premature outbreak had thrust upon him. But he did not withdraw from the revolutionary movement.

General Wysocki, who succeeded him, ordered Milkowski to organize a Polish legion in Turkey, and to bring them to the seat of war. They were to advance in conjunction with a little Italian corps under Garibaldi. But the difficulty of transporting the Italians to Moldavia made this part of the plan impossible to carry out, and the Poles advanced alone. Milkowski's line of march was to be across the Danube, traversing the whole of Moldavia, and entering Poland at Kaminetz in Podolia. The boldness of this plan is evident from a glance at the map. There was ground to suppose that, as a matter of form at least, the Roumanian government would oppose their march through its territory as a violation of its neutrality. But a serious opposition might lead to connecting the Polish problem with the Eastern question, and, in the end, bring about the intervention of Europe, which stood with folded arms calmly following the struggle of the Poles.

To carry out his project, Milkowski had but two hundred and fifty men under his immediate command, and twice this number of volunteers hidden in upper Moldavia, who were to join him later in the campaign. Scarcely had the expedition started when the Bucharest government decided to oppose it, and ordered out eight thousand men against this handful of Poles. Two battalions of infantry and a squadron of cavalry came up with Colonel Milkowski. Twice he succeeded in baffling the enemy, but finally at Kostengalia he took up a position and prepared to fight. This is considered to have been the most brilliant encounter of the Polish insurrection of 1863. The enemy was eight times more powerful than the Poles, but it availed him nothing. The battle occurred in an open plain. The courage of the soldiers and the masterly maneuvers of their commander obtained a complete victory. This success secured the passage of the Pruth. The little army crossed the river, and here was to have ended this short campaign, conducted with vigor and marked ability. But a great disappointment awaited the Colonel

and his troops on the other side of the Pruth. The transports were not at the rendezvous. It was impossible to continue the forced march through a hostile country, and the little band, attacked for the fourth time by the Roumanians, was compelled to surrender. But the government agreed to let the insurgents pass quietly on to Poland, provided Milkowski would suffer himself to be expelled from Roumania in order to satisfy the demands of Russia. So the commander bade farewell to his brave men and returned to Constantinople.

This expedition rendered Milkowski very popular in Roumania. Prince Couza, who was then on the throne, called him to Bucharest. The inhabitants prepared in Milkowski's honor a triumphal entry and public ovation, but at the wish of the Prince, who feared to mortally offend the Russian consul, and perhaps also on account of the hero's retiring disposition, these ceremonies were abandoned, and Milkowski entered the city *incognito*.

From Constantinople Milkowski went to Galicia by the way of Paris, but was forced by the Austrian government to quit the country. The Polish revolutionary government then confided to him the post of political agent in the Hungarian and Slave countries, and he took up his residence at Belgrade, where he remained two years and a half. The failure of the Polish insurrection restored him to private life and his literary pursuits. Milkowski lived from 1866 to 1872 at Brussels, and finally came with his family to Switzerland, where he still resides in a simple, happy home at Geneva.

The principal historical work of T. T. Jez, the "Second Empire," which first appeared in the illustrated Polish periodical *Kłosy*, has never been published in book form. This voluminous history is devoted to an able exposition of the events of Napoleon III.'s reign. I may also mention as belonging to this same category, "Belgium and the Belgians," and a pamphlet entitled "The Servian Jubilee," which is given up to a consideration of the part played by Servia in the

destiny of the southern Slavonic countries and the political rôle which she is called upon to fill.

An enumeration of the writings of T. T. Jez would occupy too much space here, but it may be truly said that they have largely contributed to spread throughout Polish society the democratic opinions of which he is the sincere and enlightened champion. His influence on the youth of Poland can not therefore be exaggerated. He is considered in his own country to be one of the moral leaders of the Liberal-Progressive party, which demands, besides the political independence of the nation, social liberty, civil equality, and the spreading of light among the people.

It is as a novelist that T. T. Jez excels. He employs it as an offensive and defensive weapon in the conflict which Polish literature is forced to keep up in the effort to defend the last intrenchments of the nation threatened by its deadly enemies and the adversaries of progress. He has written not less than sixty novels, which may be separated into two grand divisions—those of a historical nature and those devoted to the social aspects of life.

His pages contain no sermons. The dramatic action of the story, the philosophical character of the actors, the pure and original language, the vigorous style, and the masterly treatment and development of the plot, render reasoning and moralizing unnecessary.

The annals of Poland and the southern Slave countries furnish him rich materials for his historical novels. His plan is to choose a certain moment in the life of one of these nations, and then to elucidate it by a dramatic narrative. For instance, his first creation in this department of fiction, the "History of the Great-Grandfather," treats of the formation of nobility in Poland, the equestrian order, which played such an important rôle in Polish politics. This book shows that the political organization of Poland was not brought about in the same way as in the Western nations of Europe, where it was accomplished by

conquest. The superior class did not come from without, as was the case elsewhere, but was formed within the limits of the country. It sprang from the people, and was made up of those who rose through their own merits above the level of the crowd.

The history of the southern Slaves—the Servians, Bosnians, and Bulgarians—has afforded Milkowski an inexhaustible mine, from which he has drawn many admirable plots. The most ambitious of these creations is unquestionably the "Slave Herzog," known in history as Etienne Kosatch, the founder of a State formed from the confused mass of territory divided to-day into Bosnia, Herzegovina, Montenegro, and Dalmatia. I shall not attempt to give even a resumé of this kaleidoscopic novel; it is a moving panorama of the fifteenth century, so different from our own. The author has studied the epoch from a double point of view, that of history and philosophy. The first furnishes him the facts, the second the psychological emotions, and together form a work which alone would suffice to place T. T. Jez in the front rank of novelists.

One of his historical novels, the "Uscoques," has been translated into English and French. The Uscoques, from a Slavonic word, meaning refugees, were those patriots who, when Turkey seized upon Bosnia in the sixteenth century, fled for safety to Germany and the Venetian republic. The hero of the tale, Djordji, an Uscoque, makes the acquaintance at Venice of the daughter of a patrician. The young girl falls violently in love with him, and urges him, against his own will, to flee with her at the moment when the ceremonies for her marriage were in progress in the ancestral halls. The Uscoque carries her to his boat. They are pursued, and, in mid-sea, they are overhauled by one of the patrician's galleys. A very dramatic and splendid scene follows. The nuptial benediction and a duel are enacted on the still waves of the Adriatic under the soft light of the moon. The Uscoque marries the woman who has

thrown herself into his arms, and, sword in hand, is victorious over their noble Venetian pursuer.

A French critic, on laying down the "Uscoques," exclaimed of the author, "Why, this is a modern Walter Scott." This is quite true. There is indeed a resemblance between the English and Polish writer in the principal features of their work and in the general treatment of their subjects, but in the details, in the philosophical conception of the characters, and in the moral aim of the story, T. T. Jez is perfectly original.

We see in his novels that their author is a soldier in the breach—now employing the sword, now the pen, in his brave

fight for the defence of his unhappy native land. He never wearies of expounding Poland's right to a separate life. In fact, he proclaims that Poland, destroyed, still lives; that she keeps up the fight undaunted in the midst of a thousand obstacles, even in the face of defeat. The most striking proof of the truth of this statement is found in the literary life of Milkowski. T. T. Jez had only to bow before superior force; his talent would have assured him a brilliant career in Russian letters. But he has ever calmly and contentedly marched in the ranks of Polish authors—poor, but proud—and a patriot to the very core.

THEODORE STANTON.

ORGANIC CEREBRATION.—No. 7.

[Continued.]

SEMI-INTELLECTUAL SENTIMENTS.

THIS class of organs is located in the region of the temples, and when large, gives width to that region upward



CONSTRUCTIVENESS LARGE.—COUNT VON MOLTRE.

and backward from the external angle of the eyebrow, and an expandedness to the upper part of the side-head. In this group are located Constructiveness, Ide-

ality, Sublimity, Imitation, and Mirthfulness. These faculties tend to humanize, and refine, and elevate life and character. Constructiveness is eminently an inventive and tool-using faculty; it is possessed by men in common with some of the lower animals; and if we look about us, we shall see that mechanical invention and ingenuity constitute the source of much of the wealth, and nearly all of the comforts, conveniences, and elegances of life; this faculty, therefore, is one of very great importance. It is located in the region of the temples, backward from the external corner of the eyebrow directly forward of the organ of Acquisitiveness. Without the faculty of Constructiveness no man could live where winter reigns three or four months in a year; and we find that in hot climates, where housing and clothing are comparatively unnecessary, the faculty of Constructiveness is not much developed. The North American Indian, living in a cold climate, where he is obliged to fabricate ingenious contrivances for catching fish, killing game, and making for himself clothing and shelter, has a good development of this organ; while in the torrid zone,

especially in Africa, the negro is seldom much developed in that organ. When removed, however, to a cooler climate, and work more or less mechanical becomes necessary, this organ becomes better developed than it is among the people of his native land. In any climate suited to the best development of the human race, employment that calls into use Constructiveness and ingenuity, seems to be about as natural as walking; hence, we notice the little girl enjoys life as well while using her scissors and needle in the construction of dolls' clothes, as she would in mere play and sport; and a boy tries to build a cart, and constructs railroads, and boats, and water-mills, and appears to take great pleasure in the processes. There is no education in life in which a good development and proper training of the faculty of Constructiveness would not be a benefit to the person. If he be a lawyer, cases arise in which mechanical invention may be in question, or the excellence of workmanship in some matter may be the point,



IDEALITY.—DR. J. G. HOLLAND.

and it is a pity that the great lawyer should have neither talent for mechanism nor any knowledge or training in re-

spect to construction in general. Three-quarters of the merchants require mechanical talent to understand the con-



IDEALITY LARGE.—RUBENS.

struction of the articles which they have occasion to sell; and to be a hardware man, one needs all the talents that are required to manufacture the goods that are to be sold. If we think over the great names which history delights to honor, those who have benefited the world by inventions come to the mind and the lip instantly. The steam-engine is doing so much, that its inventor, James Watt, may not be forgotten. When we think of electricity and the uses which are made of it, the names of Franklin, Morse, and Edison are suggested. In this age of steam navigation, Fulton, Ericsson, and Roach may not be forgotten. The sound of the power-loom and the spinning-jenny reminds us of Arkwright and Slater. Our morning paper should call to mind Hoe, the inventor of the mammoth printing-press. Whatever is made by the sewing-machine will keep the memory of Howe in the minds of the public. And whoever crosses the wonderful suspension bridges of Cincinnati, Niagara, or Brooklyn, will remember Roebling. And the farmer old enough to remember the old-fashioned scythe and cradle, will think of McCormack with thankfulness and pride, when he sees the golden harvest or the waving grass levelled without severe labor of man by the reaper and mower. And not to forget the special service of Ericsson in the invention of the propeller steamship,

and especially in the total revolution in naval warfare by his invention of the *Monitor*, must lead us to feel that those of the human race most deserving of honor, not to say crowns, must be looked for not alone among poets, and orators, and philanthropists, but among inventors whose inventive talent and skill have made the earth smile with improvements, and changed the solitary ocean into a field of pleasure.

This faculty has two or three modes of activity; one is that of invention, another is that of practical construction. It sometimes seems to work with perception, and then the development is toward that group of organs. When the mind takes on the financial speculative spirit and Constructiveness seems to be the chief factor, it works in conjunction with Acquisitiveness, and the two organs will seem to be developed, as it were, from one base. When it works in the direction of invention, the development is upward in conjunction with Ideality; and the practical phrenologist will readily infer the mode of activity.

IDEALITY.

Ideality is located directly above Constructiveness, and its office appears to be adapted to appreciate and minister to beauty, perfection, and refinement. The artist whose skill is employed in works of beauty, must have this faculty strongly

marked. We look abroad into life, and find that nature is full of beauty; utility seems to be sought in a thousand things, but generally that utility will be glorified by beauty. The orchard is fragrant and glowing with blossoms, even the thistle, which is a standing declaration of war against nearly everything but donkeys, who are said to eat it, is surmounted with a crown of glory. In the depths of the sea, the shell and the coral bespeak beauty in a thousand forms. The taste for decoration and elegance which is manifest in a thousand ways of dress, and houses, and furniture, and with almost everything that has a utilitarian purpose, must be crowned with ornament. Ideality enjoys beauty of thought, of motion, of language, and of colors; co-ordinating as it does with the faculties which produce these results, it tends to beautify the whole. Without Ideality a man's language may be logical, but it will be as dry and as sharp as a last year's chestnut-burr. We find strength in straight lines; but the curved, by mechanism and art are employed to give beauty as well to articles of strength, and thus the most massive machinery will have its graceful lines and its decorative forms. Ideality seeks elegance of diction; it does not ignore logic, but adorns it. It seeks the truth, but chooses a beautiful dress in which to clothe it.

NELSON SIZER.

THE CHRISTIAN CHURCH.—No. 2.

ITS HISTORY AND DIVISIONS.—(Continued.)

AS the number of churches increased, and were spread over larger territory, it became necessary to make nearer perfect their organization, and more clearly define the duties and powers of the officers. We have seen that bishops presided over several churches; usually one in a city, and others in the surrounding country. Where there were several bishops in the same city or vicinity, they selected one to preside who was known as the Metropolitan Bishop, Chief Bishop,

or Archbishop, and to him all the clergy in his district or diocese were required to refer for advice, direction, or council. After a while it seemed necessary to have an authority superior to the archbishops, and gradually the bishops of Rome, Jerusalem, Antioch, Constantinople, and Alexandria became invested with that power. Little by little they assumed the right to dictate, and from the beginning of the fifth century they took the title of Patriarchs, and the power to supervise

all other ecclesiastical officers within their jurisdiction was granted to them. As might be supposed, their decisions on the same questions were often different, which resulted in confusion. Each endeavored to attain and assert supremacy. By various means Rome and Constantinople succeeded in their efforts to have the others ignored, and then Rome claimed a higher place than Constantinople, for the reasons, first, that the Church there was founded by Peter, to whom Jesus had said, "On this rock will I found my Church"; and second, because it was the chief capital of the empire, and the centre of wealth and power. The Eastern Churches for a long time upheld Constantinople, but when, in the middle of the fifth century, the decrees of various councils, and the edict of the Emperor united in determining that the Patriarch of Rome should be highest in authority, from whose decisions there should be no appeal, and that he of Constantinople should have second place, they were obliged to submit. But they watched jealously his every act, and frequently rebelled in consequence of his decisions, as did also sometimes the Western Churches; and it was not until the eighth century that the authority of Rome was fully established.

Quite early in the history of the Church it had been common to call all bishops *Papas* (from a Greek word meaning father), as a token of reverence and respect. This changed to the English, *Pope* finally became the title of the Roman Patriarch.

The early opposition of the Roman government to the Christians was not entirely because they denied the gods of the Romans. The first Christians were Jews, and taught revolutionary doctrines. They believed Jesus would soon come to overthrow the Roman power, and restore to them the government. The Jews as a nation had always been troublesome to the Romans, and when this new sect arose they were doubly objectionable. But when it began to make converts in every part of the empire, the opposition

in a measure ceased, and they were looked upon with more lenity, until finally they became recognized by the government, and slowly Church and State came into a state of harmony if not of perfect agreement. Before the fourth century bishops were often elected by the people or congregations; after that time it was common for the Emperor to nominate them, which nomination was equivalent to an appointment. We shall see further on how bishops afterward made emperors and kings.

At the death of Constantius, which occurred at Eboracum (now York), in Britain, in 306, he appointed Constantine his successor to govern in the West. But there were rivals in the way, and battles to be fought. Constantius had favored the Christians, and had been successful in his undertakings. Constantine with the superstition of his time thought it possible the success might have been in consequence of the favor. His opponents sacrificed to the Roman gods, and he concluded not only to follow the example of his father in his treatment of the Christians, but to appeal to their God for assistance. He stated that he saw, above the sun, a luminous cross on which were the words, "Under this sign thou shalt conquer," and also that Christ appeared to him in a dream, and showed him a cross on which were the letters I. H. S. in monogram, assuring him if he would adopt that as a banner he would succeed. Whether this story is true or false, it is certain that he adopted the cross and motto for his standard, defeated his opponents, and became Emperor of Western Rome, embracing Gaul, Spain, and Britain, in 312.

From this time the prospects of the Christians brightened, for although Constantine was still a pagan, he permitted no persecutions in his dominions. In 313 he proclaimed freedom for all forms of religious worship, including Christianity, released lands belonging to Christians that had been confiscated, and exempted the clergy from all taxes, and from certain services to the State required from

others, thus making of them a favored class. The performance of religious rites by any sect or class in secret was soon after prohibited, but magical ceremonies openly held were allowed. The people were permitted to indulge in the superstitions they had so long believed, and the traditions of ages were not interfered with. In the meantime the government was conducted with a prudent policy. No one was restricted from sharing in it on account of religious beliefs, and offices were given to Christians and pagans indiscriminately.

The early Christians assembled on the first day of the week in commemoration of the resurrection of Jesus. The first



ATHANASIUS.

day of the week was in the Roman calendar Sun's day. The sun was the god of Constantine's worship, as it was his chosen emblem. Sun's day was to him the day of days, and early in his reign he ordered, "Let all the people in towns, judges, mechanics, and tradesmen, rest on the venerated day of the sun; but those who are in the country may freely cultivate their fields, since it often happens that on no other day can grain be more suitably sown or vines set." Military exercises were prohibited, and courts closed on that day except for the freeing of slaves. While such an edict was fully in accord with the desires of the Christians, it was the decree of a progressive pagan ruler, Constantine not yet having declared himself a Christian nor given

up his adherence to or worship of the gods of Rome.

In the meantime in Eastern Rome, under the rule of Licinus, matters were different. The old religions were sustained and many restrictions, in some amounting to persecutions, were made relating to the Christians. A jealousy had long existed between the two Emperors, and now Constantine assumed the part of protector of the Christians. Little do we know of the real motives that influence men's actions. In this case, however, it is plain that ambition and love of power ruled, and that belief in Christianity was a mere pretext; but it served his purpose. His pagan soldiers were none the less efficient because Christians fought by their side, and these latter were encouraged by seeing their bishops marching beside him under the banner of the cross. Licinus was defeated, and Constantine became sole Emperor of Rome, A.D. 323.

His success in the various battles fought under his new banner was to him indicative of the truth of Christianity, and although he did not fully break away from his pagan ideas, and submit to baptism for many years, Christianity may be said to have become the chief religion in the empire. Among the supporters of the old religion of Rome were the wealthy and aristocratic classes, who could not become reconciled to the favors shown by Constantine to the Christians, that caused troubles and jealousies in the government as well as elsewhere, and to avoid which, as far as possible, as well as to give himself a new position from which to rule the whole empire, he removed his capital to Constantinople in 330.

While the Council of Nice, before spoken of, had declared what was the relation between the Father and the Son their ideas relative to the Holy Spirit were not so plainly stated. Some believed it to be a creation of the Son; others an agency or power proceeding from the Father, and others that it was a part of God. A council to discuss that question, and if possible to come to some agreement about it, was held at Constan-

tinople in 381. The result was, a majority present agreed to add to the creed adopted at Nice, "I believe in the Holy Ghost, the Son and giver of life, who proceedeth from the Father; who with the Father and Son together is worshipped and glorified." Thus was the doctrine of the Trinity made complete.

We have not space to notice or even to name the scores of sects that sprung up. Every so-called heresy that arose, or opinion differing from that generally held, when opposed, had its supporters, and they consolidated into a sect. We have spoken particularly of the Athanasians and the Arians, and will name another to which we shall have to refer further on. This is the Anomæan, from a Greek word meaning no similarity. They denied any likeness or similarity between God and Christ. They have sometimes been called the radical Arians. They held there was nothing in the Gospels, or other teachings of the disciples or apostles, showing that they believed Jesus to be other than the nearest perfect man that had ever lived, and whose mission was to lead men to God by precept and example. Their ideas were in this respect similar to those of the Ebionites, a sect of Jew-Christians.

Bitter were the hostilities of the sects, arising sometimes from what now seem to us small causes, as on what day Easter should be observed, and others of as little consequence. Similar and as unimportant questions may serve to make sects at the present time, but fortunately the differences do not result in tumults, riots, and bloodshed as in the olden times. Constantine earnestly but vainly endeavored to make peace between them, and at one time it seemed that mutual destruction would result. Leading principles were lost sight of in the contests about minor matters, and morality was at a low ebb. But the truths of Christianity were fertile, and notwithstanding the obstacles and hindrances placed in its way by both friends and foes, they took root and grew slowly but surely.

When Constantius, at the death of his father in 337, became ruler of the eastern part of the empire, he was less tolerant of the old religion, but was restrained by policy from carrying intolerance too far. In sectarian disputes he sided with the Arians. Constans, his brother, who ruled in Italy and Africa, upheld the Athanasians. Councils of bishops in the dominions of one, reversed those held by orders of the bishops in the territories of the other, each assuming to be authoritative. The rulers took part in these controversies; civil war ensued, Constans was killed, and Constantius ruled alone as his father had done.

A council to examine charges against Athanasius was called at Milan. Here he appeared and desired to take part, but the bishops objected. The Church was now strong, and the western bishops being in a majority, not only rejected a plan he submitted to them as being in support of Arianism, but denied the right of any layman, even the Emperor, to interfere in ecclesiastical affairs, asserting that the Church was entirely independent of the State, and not in any way subservient thereto. Thus rebuked, Constantius became the avowed champion of the Arians, and brought all the strength of his power against the Athanasians, the persecutions of whom became terrible.

While this warfare was at its height Constantius died in 361, and Julian reigned. He was a Platonist, a worshipper of the gods, and manifested his dislike of Christians in many ways; not so much by persecutions and general intolerance as otherwise. His hatred of Constantius, who had favored the Arians, induced him to treat them with but little leniency, while at the same time he banished Athanasius anew. He called a meeting of the different sects, hoping to conciliate them, but without success, and they were dismissed in disgust.

The support of Christianity by the ruling powers induced many to join its ranks from policy, whose membership served only to reduce the average of

morality among those known as Christians. So always the base and vile endeavor to better their condition by hypocrisy, and alliance with the party in power or the majority. Such had joined this or that sect as they thought advantageous; but when Julian would support none against the others, the hope of gain lessened, and the theological warfare became less bitter. At the same time the fear of punishment for sinning; the agonies the soul of the sinner must endure in an after state of torture, as taught by the Christians, served in a degree to restrain evil-doers, and the Church became an aid to those in power, of more service in some ways than bodies of armed soldiers.



THEODOSIUS THE GREAT.

Theodosius came into power about 379. He had been educated to believe in Christianity, and endeavored to settle the questions about which the sects differed. He summoned the bishops to Constantinople, and the result of their convocation was fatal to the Arians. In an edict he said, "Let us believe the sole Deity of the Father, the Son, and the Holy Ghost, under an equal Majesty, and a Holy Trinity. We authorize the followers of this doctrine to assume the title of Catholic Christians." The edict goes on to brand all others as heretics, and to forbid their places of meeting to be called churches. Those who rejected the Athanasian creed were visited with various heavy penalties. The old religions were proscribed, and only a shadow of Paganism was allowed to remain. He

acknowledged the power of the Church, submitted to penance imposed by Ambrose, and publicly humbled himself in sackcloth and ashes.

The growth of the power of Church over State, from the time of Constantine was marked. When he summoned the Council at Nice, he, as a matter of policy it is believed, took his seat lower than the bishops—an act never to be recalled. Superiority once conceded, the clergy assumed the right to be considered higher than any potentate. The claim that bishops derived their power directly from God was insisted upon, and as the power of the clergy was believed to be over the soul, it was superior to that of any prince whose dominion extended no further than the body. The clergy were not slow to impress this upon the people, who were taught to do them homage; and when Ambrose became Bishop, he demanded such tokens of respect and superiority from both people and rulers as had never before been paid.

This Ambrose was a magistrate of Milan. The Bishop of Milan having died, the bishops of the province met to elect another. The contest waxed hot between the parties, and serious difficulties were feared. Ambrose was appealed to, to preserve order as a magistrate. It is said that after he had addressed the meeting a child's voice was heard saying, *Ambrose is Bishop*. Superstition was rife, and both factions seemed to feel they had been supernaturally directed, and agreed to his election. He refused the place, and it was only at the earnest solicitation of Valentinian, then Emperor, that he consented to be baptized and consecrated.

Once inducted to office his energy and ambition asserted themselves, and he determined to rule as no bishop had done. He opposed the Arians, and became the most important leader of the Athanasians. More than any before him, if possible, he asserted the authority of the Church over the State, and sustained his position. It had been customary for the Emperor to have a seat in the Church

considered higher and apart from those occupied by the people; but when Theodosius endeavored to enter the sacred enclosure of that at Milan, Ambrose forbade it, and pointed him to a seat at the head of the laity.

Ambrose was a man of ability, eloquence, and power, and when he became connected with the Church, he left undone nothing he could do to further, at least, its temporal interests. Spiritual matters had often been lost sight of in the warring of sects. Religion pure and undefiled was not sought so eagerly as the introduction and support of their peculiar ideas. We do not find that Ambrose before he was bishop especially favored any sect, but when he entered upon his duties, and chose to support the Athanasians, it was done with all his might. He determined that party should be supreme in the Church, and the Church should keep the State in subjection. And his will dominated.

Then that which we now know as the

Roman Catholic Church assumed the supreme power; it maintained through centuries the right to which it still claims. The various other sects with their leaders disappeared for a while from public view. We say for a while, because there were those who believed themselves right, and that the truth would sometime prevail. We know some of their teachings have lived to the present time.

It is not unreasonable to suppose that thinkers in every age arrive at the same conclusions from the same premises as those in ages before them. The Gospels tell the same story now they have always told, and each man now as in earlier times puts his own interpretation upon them. In what follows we shall endeavor to show briefly but concisely the history of the most prominent of the various Christian sects and denominations now known, together with the most prominent points of their religious belief, creeds or articles of faith.

L. A. R.

PROGRESS: AN EVOLUTIONIST'S VIEW.

EPOCHS of history are the sum and the visible results of unseen and countless acting forces. They are the mile-stones on the path of progress, but, unlike mile-stones, mark no definite, well-marked lines where the one mile ends and the next begins, but simply the total of the many weary steps already traversed, and at most become new points of departure to the next unseen and but dimly imagined goal, which becomes possible only by the attainment of the last. The striking events of history, and the parts played by the men who have wrought them, are not the result of individual effort, or the work of any man, save only as he was the blind instrument of the forces that guided him. They are the product of the race,—the ripening of the seed, long planted, which in the fullness of time bears its fruit. They are not

hazardous or chance occurring, but the necessary sequence of preceding events. The steam-engine in its entirety as it speeds across the continent drawing its burden, or drives the vessel through the water in the face of adverse winds, was not a Minerva springing full armed from the brain of Watt, as he watched the dancing of a kettle's lid. It was only possible when numberless causes and forces, properly meeting, could give rise to such an effect. The Reformation became a possibility only because at the time it came the world was ready for it.

The suggestion has been thrown out, by one of the thinkers of the day, that ideas float in the atmosphere, and are absorbed or drawn in and used by those who are ready for such mental pabulum. It would be a strange paradox if the source of ideas and sensations, which we

regard as essentially and peculiarly our own, should be in reality and truth developed outside of us, and that we should simply absorb them. It would be strange, yet not impossible; for if sensation and thought be the result of change and movement of the molecules of the brain, what more natural than that when the vibration of atoms had reached a certain stage, it should respond to the vibrations in the surrounding ether, and a logical sequence of thought be the result. If ideas are a vibration in the brain, it is but a fair conclusion to draw that they may already exist as vibrations in the ether. It is certainly no more unique to accept such a conclusion than it is to find the development of the same idea and same thought, in almost identical terms, by individuals at the antipodes. If we assume that ideas are not individual possessions, but the result of race growth, we can understand why at several different points, with no visible connection, the same idea may bear fruit. So common is this, that not only localities, but nations, and even different lands, contest for the priority of new ideas.

We may simply refer, in this connection, to the well-known facts of the almost simultaneous announcement, by Darwin and Wallace, of similar conclusions regarding the theory of evolution, which, though long held in shadowy shape by many thinkers, was destined to be brought into prominence, and elaborated almost upon opposite sides of the earth.

In many inventions we see the same thing, by the difficulty there is in deciding to whom the merit really belongs. Perhaps the most striking proof would be, though in a more localized sense, in the patent-office, where the examiners are constantly called upon to decide upon applications for patents for similar, sometimes identical, inventions from widely different sources, each independent of the other.

Man at birth is the possessor of the accumulated experience of his ancestors, and not only of that, but of all possibil-

ities to which such experiences tend as well. In the economy of nature it makes very little difference what individual will carry forward these ideas to fruition. It will come in the proper time, through one or more agencies. Progress is not dependent upon any one source, and is not left to any one instrument. Mass progression is everything, individual nothing. The individual is like the wave of the incoming tide that breaks in foam upon the shore, more perceptible than the silent, heavy flow, yet a mark of progress rather than an aid to it.

The germs of ideas that are to result in benefit to the race, must lie fallow in the mind for a time. The assertion that there is no novelty under the sun is true in part, for the germs that have borne fruit in our day are seen scattered all along the path of time, dimly shadowed to ancient thinkers, but not to be recognized in their full distinctness until illumined by the sunlight of increasing knowledge,—as even now they lie all around us, biding their time to germinate, grow, and bear their fruit in distant ages.

Circumstances make the hero; he is the product equally of his time and of his *environment*. The only requisite demanded of him is, that, when his cue shall come, he shall be ready to play his part; and failing that, he falls aside, and there is always ready one to take his place. Napoleon proudly declaimed against circumstances; yet, when his part was played, circumstances, with inevitable train of sequence, exiled him to St. Helena. Equally misled, one of his admirers said, that with his exile the hands upon the dial of time were turned back a hundred years. But the hands upon the dial of time are never turned back. In the slow march of the centuries, and of the advance of man, there is no pause and no retrograde, but the movement is ever onward and upward.

Seemingly stagnate in one direction, movement is onward in another, like the movement of the monad which thrusts

forward by slow degrees a foot, which taking a position, the body is laboriously dragged up to it. The great labor is expended in dragging up the mass; so in man the mass resists the onward movement; while the head may bask in the sunlight of heaven, the body is sunk in the depths of darkness and ignorance.

B. F. U.

I THINK we are too ready with complaint
In this fair world of God's. Had we no hope,

Indeed, beyond the zenith and the slope
Of yon gray bank of sky, we might be faint
To muse upon eternity's constraint
Round our aspirant souls. But since the scope
Must widen early, is it well to droop
For a few days, consumed in loss and taint?
O pusillanimous heart, be comforted,
And, like a cheerful traveller, take the road,
Singing beside the hedge. What if the bread
Be bitter in thine inn, and thou unshod
To meet the flints? At least it may be said,
Because the way is *short* I thank thee, God!

MRS. E. B. BROWNING.

MERV AND ITS PEOPLE.

WITHIN the last two years our readers have seen in the public prints some mention of Merv. This far East country has grown into prominence from the circumstance that it has become a factor in the so-called Eastern Question, the consideration of which has claimed the attention of European diplomats. Russia has, for a long time, been thought to be looking with a covetous eye toward Constantinople and the East; and this, of course, would naturally excite the jealousy of the other cabinets of Europe who are interested in maintaining the *statu quo*, or the "balance of power," among the nations. Merv, by the surrender of the fortress of Geok Tepé to General Skobeleff, has come into the possession of Russia. As this, though taken in a southwardly direction, is a step in the advance of that power toward Constantinople and the East, the other powers, especially England, at once took the alarm. England, ever on the alert for the safety of her East India possessions, is said to have interposed a counter-check to Russia by concluding a treaty, offensive and defensive, with Abdurrahman, Emir of Afghanistan, who, we learn, is much more powerful than any of his predecessors have been.

But where or what is Merv? The Merv that we read about, although called by the somewhat ambitious title of the "Queen of the World," is not in reality a city, as the reader might have been led

to suppose, but rather an aggregation of settlements containing 2,000 inhabitants, situated in a province of the same name, with a population of 200,000. The latter is in Central Asia, between the Sea of Aral and the Caspian, just where the bending of the Caspian Sea to the eastward narrows the territory between itself and the Sea of Aral, and immediately south of and adjoining Asiatic Russia.

Our information concerning this country is very meagre. The best encyclopædias say but a word about it,—in some of them the name does not occur at all. The most that we know of it we gather from the accounts of a few persons who accompanied either the one or the other army of the contestants, in the capacity of correspondents for certain London newspapers, during the recent military operations which resulted in its falling into the possession of Russia. These accounts, too, are somewhat conflicting. The principal locality is sometimes spoken of as the "Oasis of Merv." Now, what is an *oasis*? A green spot in the midst of a desert. From this we gather that the most of the country is a desert. In fact it is reported to be a sandy plain, on which no grass is to be seen, except here and there a species of tall, coarse grass, such as may be found growing on the *pampas* of South America. Yet the country seems to be traversed by numerous streams, from which water is conveyed by canals for purposes of irrigation. Trees

grow on the margins of the streams, and by means of irrigation many kinds of crops can be grown, notably tobacco, and many kinds of fruit. Other accounts, again, speak of much of the country being swampy. But this, we discover, results from the overflow of the irrigation trenches in time of heavy or protracted rains,—though that some portion of the country, at least, is swampy, we know, for one such place is spoken of as the "Great Tejend Swamp." Though most of the country is a flat, sandy plain, yet mountains are to be seen in the distance, on the outskirts of the territory. In the season of rains, great torrents dash down from

carelessly laid aside for a time; while swarms of flies add to his discomfort, with tarantulas and mosquitoes. The rivers are filled with fish, and certain kinds of birds hover in the air. Coveys of partridges start up, almost under one's feet. The red-legged partridge is the most common, but there is also an abundance of the royal partridge, a bird equal in size to a small turkey; in addition to these there is also a small ashen-gray species, with yellow legs. In many parts of the country no other birds than those mentioned are to be seen, with the exception of very large black eagles, which soar so high that no adequate description of them



NORTH GATE OF THE CITY OF MERV.

these mountains, leaving at other times dry river beds, and the ground strewed with huge boulders. The raised spots in the beds of these temporary rivers, now dry river beds, as well as their banks, soon become overgrown with thorns, reeds, tamarask-bushes, or pampas-grass, making the jungle so dense that one can scarcely force his way through.

Animal life is abundant in such spots as that above described. Jackals and foxes start up before the traveller; lynxes, too; wild boars abound, and a leopard may occasionally be seen. There are snakes also, mostly of a venomous kind; while large, whitish-green scorpions abound, stowing themselves away in the valise of the traveller, or in garments

can be given, further than to say that they are black and of great size.

The inhabitants of this country are Turcomans. They consist of various petty tribes that are independent of each other, and governed by Kahns. Those who inhabit the settlement of Merv are Tekkés, called Merv Tekkés, to distinguish them from the Akhal Tekkés. Sometimes they are called Mervli. They are Mohammedans; very regular in saying their prayers, and very strict in all the observances of their religion, yet they are all arrant thieves. They are described on some hands as troglodytes,—that is, dwellers in caves. The earth is excavated to a sufficient depth, and the excavation covered over with reeds and sticks, upon

which are placed leaves, earth, etc. The traveller, seeing no sign of a habitation, except sometimes perhaps he may chance to notice a smoke arising out of the ground, as it were, but which in reality ascends from a hole in the roof of a cave or dwelling where the chimney ought to be, rides incautiously onward, and the first thing he knows horse and rider plunge into one of these subterranean habitations, and he finds himself in the midst of a family. Sometimes an excavation is made in the ground only two or three feet deep, and around this walls are erected of about the same height, and covered in the usual manner. In case the dwelling is erected wholly above ground, which it sometimes is, it is built of reeds bound into faggots and set on end in a circle, leaning toward each other, and the whole rounded off in a conical form, looking like a beehive, as represented in the engraving. These dwellings are called in

their language *kabtkas* or *aladjacks*. Sometimes in consequence of the heat, which is often very great here, a tent is pitched, in which they live, sitting upon a mat or car-

pet spread on the ground. This is called an *ev*. It is only the wealthy, or better class of people, who live in *evs*. Most of their dwellings are of a very temporary character, for many of these people are nomads; not staying long in one locality, but roving about from place to place and



PEOPLE OF MERY.

living upon plunder, it would be hardly worth while to erect substantial houses only to be soon deserted. Sometimes an expedition is organized to make a raid upon a neighboring tribe; but when there is nothing of this kind to be done, they steal from each other; for, as has been intimated before, they are great thieves.

They are a dark-skinned people, and although their climate is at times very warm, their clothing consists of garments made of sheep-skin, for the most part. Their heads are covered with turbans; and they wear also, either with or without this, tall conical hats of sheep-skin. The men are well armed, carrying guns and pistols with percussion locks. In addition to these arms, every one carries also a sort of sword, or cutlass, called a *handjar*. The women (as to dress see engraving), in accordance with the propensity of the sex everywhere to ornament themselves, seem to be well supplied with jewelry, which they wear upon all occasions. After the fall of Geok Tepé, the Russian General Skobeleff, in order to make a contribution toward the expenses of the campaign, levied upon this jewelry as contraband of war. One correspondent was informed that a stack of rings, brooches, and other ornaments, as high as a man's head, might at one time have been seen as it lay piled up on the carpet. The *Samovar*, containing the tea, which every one drinks scalding hot, is to be found in every house; and the water-pipe, *calioun*, sometimes called the Persian water-pipe or *Narghileh*, without smoking which beforehand no enterprise of importance, or the contrary, can be entered upon, is universal.

In consequence, as some think, of the fierce sunlight reflected from the marly plain, or, as others think, the frequent dust storms, about one Turcoman in every ten is afflicted with *keratitis*. Many persons were found who had lost an eye, sometimes both eyes, from this disease. It is the ophthalmic malady commonly known by the name of *pearl*. There is in this country an insect about a third of an inch in length, and resembling in form

what is elsewhere known as a sheep-tick; it is silver-gray in appearance and has eight legs, four on each side, whose bite is sometimes followed by the worst consequences. It is known here by the curious name of "Bite the Stranger." When bitten, a small red point, like that produced by the ordinary flea, is at first seen; then follows a large black spot, which subsequently suppurates, accompanied by a high fever, identical, as far as external symptoms go, with intermittent fever. In this it is like the bite of the tarantula or *phalange* of the Turcoman plains. The only difference is, that the fever produced by the sting of this insect, known scientifically as the *arga Persica*, and locally as the *garrig-gex* and *Genné*, if neglected for any length of time is fatal. It is accompanied by lassitude, loss of appetite, and in some cases by delirium. There is another plague, too, peculiar to that, as it is to some other Eastern countries,—we mean the Guinea-worm, as it is styled in Abyssinia, and known to English-speaking peoples generally, but which is here known as *rishlé*, or the worm of Pharaoh. A caravan hardly ever arrives from Bokhara without a large number of its members being afflicted with this disagreeable entozoon. Any one who drinks of the standing water of the rain pools, or that of the tanks of the caravanseries, is almost certain to take into his system the egg of the *rishlé*, which will then infallibly develop itself. It usually makes its appearance where the bone has little more covering than the skin,—as at the ankle, the knee, or the elbow-joint. First, a small pimple is seen, which after a time opens, and a small black head, furnished with two minute hooks, is seen protruding. This is laid hold of and drawn gently, the body, which is of a bright primrose color, and of about the thickness of the E string of a violin, following, to the extent of about half an inch. This operation is repeated twice in the day, care being taken to draw the worm very gently, lest it should break. As it is drawn out it is wound upon a quill, a fine twig, or some such small object. This operation, the

extraction of the worm, occupies a month or six weeks, for it is sometimes a yard in length. As it dries it loses its fresh yellow color, and exactly resembles a violin-string. Should the *rishté* break during its extraction, serious results are apt to follow. The entire limb swells, and suppuration sets in along the track of the worm. In the latter case, after seven days of intense agony, the entire body of the creature is discharged, and the wound heals up. Should the constitution of the sufferer not be of the strongest, however, he is in great danger of losing his limb, which in such countries is almost equivalent to losing one's

fact that while the *rishté* prevails all over the province of Merv, and in Southern Bokhara, it is never found in the Oasis of Merv proper.

Thus we see that this country, so abundantly supplied with animal life, contains also many of the pests found elsewhere, usually in tropical regions. But a more advanced civilization will tend to a reduction of the number of these. For example, an improved method of supplying water for drinking and other purposes will obviate the necessity of taking it under conditions which furnish the germ of the Guinea-worm. Although the country seems to be a healthy one, and



ORDINARY HOUSES OF THE MERVITES.

life. There is another method by which the *rishté* may be extracted, without the tedious process of drawing it out day by day, half an inch at a time. By a judicious pressure of the fingers, with a kneading motion around the orifice whence the body of the entozoon protrudes, it can be gradually worked forward, and its entire length extracted in the course of a few hours. There are persons who devote themselves especially to this, making use, generally, of a couple of small silver coins with which to press around the orifice. A newspaper correspondent was informed by one of the Kahns that, in the course of a year, he had extracted from his own body as many as forty of these dreadful worms. It is a curious

favorably situated as far as climate is concerned, yet certain diseases prevail. In addition to *keratitis*, the eye disease already mentioned, fifty per cent. of the population, both male and female, suffer from badly diseased livers, scrofulitic and scorbutic ailments. The deranged livers are thought to be the direct product of the consumption, during the exceedingly hot weather, of large quantities of melted fat, which it was useless telling the people to avoid. How they do this will be seen in the next paragraph. They have fevers too, to a limited extent.

Sheep constitute most of the living of this people. They use their carcasses for food, and their skins for clothing. These animals are of the big-tailed variety, and

at Merv a sheep usually costs from seven to twelve shillings. All the fat of their bodies seems to be concentrated in their tails, which weigh, on an average, not less than twelve pounds, and is the dearest part of the carcass. When a sheep is killed, the tail is first made use of. This is skinned and cut into pieces, which are then put into a large hemispherical iron caldron about two feet in diameter. In this the fat is melted down to the consistency of oil, and, when at a high temperature, pieces of lean meat, chopped small, are thrown into it, and the pot afterward removed from the fire. The contents are then poured into a wooden dish, somewhat larger than the pot, which is placed upon the carpet in the midst of the guests. Owing to the high temperature of the fat, these morsels are completely calcined, and taste like greasy cinders; for the Turcomans all like their meat very well done. When all the meat has been picked out of the dish, and the liquid fat which remains has become cool enough, the master of the feast takes the vessel in both hands, raises it to his mouth, and swallows a pint or so of its contents. He then hands the dish to the guest nearest to him, who does likewise, and so it makes the circuit of the party. When nearly all the grease has been swallowed, and if there be present any person whom the host especially designs to honor, he offers to him the wooden dish, and the recipient gathers up what remains by passing his curved finger around the interior and conveying it with what adheres to it to his mouth. Strange to say, though game abounds, as we have heretofore seen, very few go in search of it. Pheasants and partridges, the very best kind of game, though very abundant in several varieties, are not shot. The Turcomans prefer to sit at home and munch dry bread, rather than make the exertion necessary to procure game.

As to vegetable food, *pilaff* is a favorite dish, especially with the poor. It may be made of rice or barley, or indeed of almost any kind of grain simply boiled. It is sometimes flavored with prunes.

Sheets of dough boiled in oil also form a popular food. Owing to the extreme heat of the oil, these sheets are very light and flaky. The Turcomans might live largely upon fruit if they cared enough for it to enter upon its cultivation. Even with what little care is received in their cultivation, grapes, figs, mulberries, and some other kinds of tropical and semi-tropical fruits grow well.

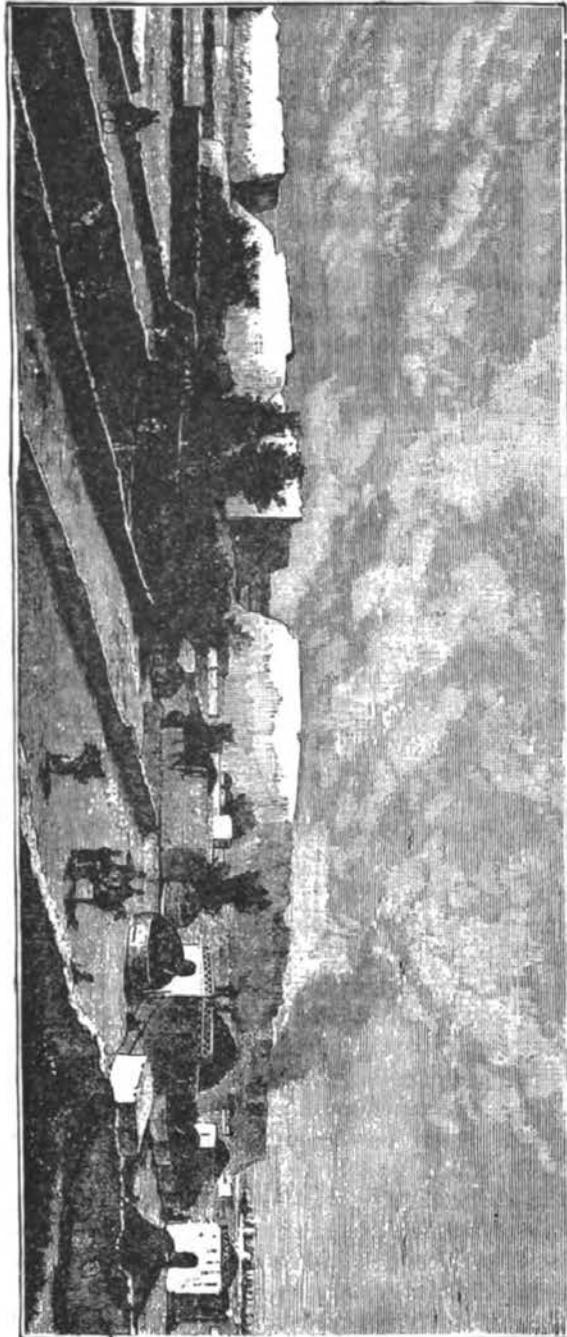
We must not forget to mention a preparation of meat, which the Turcomans carry with them when they go abroad for any purpose. It is called *sumsa*. A thin circular cake of dough, about a foot in diameter, is covered with meat finely minced, and highly flavored with spices and garlic, a little sugar being occasionally added. The cake of dough is then doubled over, and the edges united, making a sort of half-moon pie, or turnover, such as our mothers used to make for us when we were boys and girls. It is then placed in an oven and baked for half an hour. This makes a kind of mince pie, and, when they can be prevailed upon by any means to lessen the ordinary modicum of garlic, with which it is usually flavored, one of the most palatable dishes they have.

The *samovar*, or tea-urn, has already been referred to; but as a more detailed description of the making of tea and of the ceremonies attendant upon the drinking of it may interest our readers, it is accordingly given. Tea is universally drunk in all this part of Asia, and in Russia in Europe. It is always offered to a guest, if there be any to offer. Every Turcoman carries with him in his pocket a small bag of green tea; and should he happen to call at a house, the inmates of which are too poor to afford this luxury, he calls for hot water, and produces a handful of tea for the refreshment of himself and his host. The tea-pot, or *samovar*, is a copper vessel about a foot in height, and furnished with a cover. This, filled with water, is placed upon the fire, and when the contents boil, a handful of green tea is put in. Black tea is practically unknown there; nor will the

Turcomans willingly drink it when offered to them unless it be highly sweetened. Every one, when on the road, carries with him his tea-bowl. This is of Chinese porcelain, about five inches in diameter and four inches in depth. It is white inside, and of a grayish olive color on the exterior. These are the only domestic utensils in use among the Turcomans which are not either of wood or metal. This tea-bowl is carried in a peculiar leathern case, resembling a hemispherical saucepan with a long handle, which is slung at the saddle-bow of the rider. The guests, when at tea, sit in a ring. The host having two or three bowls before him, fills and hands them to his neighbors in the order of their seniority or dignity. The sugar he usually keeps in his pockets, if he has any, which is but seldom, as it is esteemed a great luxury, to be found only among the well-to-do. It is generally white, lump sugar of Russian make, but one frequently sees crystallized sugar candy, which we call rock candy, that is brought from Bokhara. If the host has some sugar, but not enough to go around, wishing to distinguish any person especially, he takes from his pocket a lump and pitches it across the ring to the favored individual. A Turcoman likes to drink his tea as hot at least as he can bear it, and when he has finished his draught, the manner in which he returns his bowl to be refilled for some

one else, is a matter of nice etiquette. By a sudden twist of the wrist he throws the vessel with a spinning motion into the middle of the carpet, affecting an air of nonchalance as he does so. After the

tea has been all drawn off, the host sprinkles some sugar upon the tea-leaves that remain, and eats them.



NORTH SIDE OF MERV FORTIFICATIONS.

These peoples, as we have thus described them, may be called semi-civilized. The correspondent of the London newspaper before referred to, reports that while with them he witnessed a dramatic

performance, the one play extending over several days. The language employed was what is called Jagati Tartar. In the course of the play an execution was represented, from which we learn that the method in such cases is to cut the throat of the criminal with a dagger, and then sever the head from the body with the same instrument. The trunk is then hung up in the centre of a cord extending between two poles fixed in the ground, cut open and disemboweled. All executions are in public. After the tragedy, a still more curious performance began, in the shape of a religious dance, something after the manner of dancing dervishes, only in this case the dancing was done by boys. Twelve boys, varying in age from eight to fourteen years, clad in long tunics of clean printed chintz, and having dark-colored handkerchiefs around their necks, which crossed upon the breast and were tied behind the waist, threw off their sheep-skin hats, retaining only the little tight-fitting skull-cap which they wore. Some of these boys were wonderfully handsome. The expression on their faces was altogether feminine. In fact, dressed as they were, in printed calico frocks, they might easily have passed for so many pretty little girls. In each hand was carried a circular piece of wood about four inches in diameter and two inches thick. In the turns of the dance these were struck together, making a clicking sound, somewhat like Spanish castanets. In the meantime they chanted something relating to Ali Heissein and Hassan. While the children were thus dancing, the men, some sixty of them, engaged also in calisthenics of their own, of which dancing formed a part, shouting the same cries as did the boys. The whole performance gave one the idea of a kind of mad cancan, in such quick time that the dancers could scarcely vociferate with sufficient rapidity the names of the two blessed Imams in whose honor they were thus exerting themselves.

There are in the province of Merv numerous towns and villages, and they are nearly all fortified; ramparts made of

clay are thrown up, sometimes loopholed for musketry, but in nearly every case mounted with cannon. Even around some deserted villages the fortifications are almost perfect. Thus the more settled tribes protect themselves from the nomads of the desert; but they will all steal alike, it is said, when the opportunity offers. Merv, the capital, is especially well fortified (see engravings); but Geok Tepé was their stronghold and the key of the entire country. The Tekkés at one time offered to surrender this fortress to the Russians without fighting, but Gen. Skobeleff refused to accept it. He wished to make upon them a lasting impression of Russia's might and power, and to show them that he could take their stronghold without their consent as well as with it. Accordingly, walls of circumvallation were thrown up, and the siege was conducted by regular approaches.

During the siege, two sorties were made by the Tekkés, but in consequence of their plans being betrayed to the enemy, the first was repulsed with loss. The following day, almost the whole Tekké force in the garrison made a desperate attack upon the advanced Russian works. They stormed and carried three of the four intrenchments which had been thrown up in front of the gates of the town at about a thousand yards' distance. Two breech-loading field-pieces and several prisoners fell into the hands of the besieged, who cut the throats of the unfortunate captives soon afterward. This partial success, however, had no further results, as the Russians were soon afterward reinforced, and the final struggle came with the capture of the place.

In order to illustrate some of the methods which prevail in that country, we relate the following characteristic event which took place while the siege of Geok Tepé was in progress, and before the lines of investment were completed. A large body of cavalry had left the town and were hovering about between Geok Tepé and Askabad. The Kahn of Kuchan, thinking the moment a favorable

one for doing a stroke of business on his own account, while the Tekkés were occupied with the defence of their stronghold, sent out a *chappow* of a hundred horsemen to seize whatever corn, cattle, or horses they could find in the outlying Turcoman villages. The Tekké warriors outside, however, got notice of the intended visit, and ambushed their Kuchañ invaders so successfully that not a man escaped, sixty being killed and forty made prisoners.

As to the annexation of Merv to Russia, it is thought to be a good thing for both parties. In fact, it makes but little odds to the Turcomans under what Government they live. But in order to secure the greatest advantages from the union, they must quit their thieving, the nomads among them must settle down

and engage in the peaceful pursuits of agriculture. They will thus not be so likely to be continually at war with their neighbors. The accession of Merv to Russia, with its 200,000 inhabitants, distributed in 48,000 *kibitkas*, is regarded upon all hands as decidedly advantageous to that power. Russia has, in the last twenty-five years, added about 3,000,000 square miles to her territory in Central Asia, containing a population of 5,000,000 of people. Her territory in Asia is now far in excess of her European possessions, though it contains but a tithe of the population. Russia seems to be following out the programme laid down for her by Peter the Great, more than a hundred years ago, and is advancing steadily toward the Bosphorus.

J. C. L.

CAGLIOSTRO AS A MEDIUM.

A DESCRIPTION of a Spiritualistic séance held by the renowned Cagliostro in Paris nearly one hundred years ago will not be found uninteresting. This accomplished charlatan gave out that, in addition to the power of transmuting metals and curing all diseases, he could bring spirits from the "vasty deep," and by paying a large sum of money—the dead, of course, would not rise for nothing—one might commune with departed relatives or with illustrious personages of bygone times. The evocations were not without an element of art. On one occasion the spirit the company desired to commune with was that of D'Alembert, and from notes furnished by an eyewitness, Lady Mantz, the actor Fleury gave the following account of the ceremony in his "Mémoires": "The spectators or, as Cagliostro preferred to call them, guests, sat in arm-chairs along the wall on the east side of the apartment. Before these chairs was drawn an iron chain," lest some foolish person should be impelled by curiosity to rush upon destruction. "On the other side was placed the chair intended for the reception of

the apparition. The Grand Koptha—the name assumed by Cagliostro on such occasions—chose the unusual hour of 3 A.M. for his evocations. Shortly before that time a voice was heard to order the removal from the scene of cats, dogs, horses, birds, and all reptiles, should any be near. Then came a command that none but free men should remain in the apartment; the servants were accordingly dismissed. A deep silence followed, and the lights were suddenly extinguished. The same voice, now assuming a louder and more authoritative tone, requested the guests to shake the iron chain; they obeyed, and an indescribable thrill ran through their frames. The clock at length struck 3—slowly, and with a prolonged vibration of the bell. At each stroke a flash, as sudden and transitory as lightning, illumined the apartment, and the words 'Philosophy,' 'Nature,' and 'Truth,' successively appeared in legible characters above the empty arm-chair. The last word was more brilliant than the others. The lustres were suddenly relighted, how no one could tell. Stifled cries were heard as from a man whose mouth was gagged

—a noise like that of a man struggling to break loose from persons detaining him—and Cagliostro appeared, and turning successively to the four cardinal points, he uttered some cabalistic words, which returned as if from a distant echo. The lights having been extinguished, he commanded the guests again to shake the chain, and as they did so the strange feeling previously alluded to was renewed. The outline of the arm-chair now became gradually perceptible in the darkness, as though the lines had been traced on a black ground with phosphorus. The next moment, and as if by the same process, a winding-sheet could be seen with two fleshless hands resting upon the arm of the chair. The winding-sheet, slowly opening, discovered an emaciated form; a short breathing was heard, and two brilliant piercing eyes were fixed

upon the spectators." The illustrious philosopher, the author of the preface to the "Encyclopédie," had been called from the dead. He would answer questions put to him, but Cagliostro alone was privileged to hear him speak. "And what questions were put to him?" asked Fleury of Lady Mantz. "He was asked whether he had seen the other world." "And what did he say?" "Ah, Monsieur Fleury, it was a terrible reply, especially to one who like me looks forward to a better future. He said, 'There is no other world.'" "And did no one reply?" "Reply! who could venture to reply to the ghost of M. d'Alembert, returned from—ah, whence?" "That is precisely the thing. You should have said, 'M. d'Alembert, if there is no other world, where may you happen to come from now?'"

THE FRENCH IN CHINA.

WHATEVER the French Government may have to urge in extenuation of its conduct in ordering the attacks on the Chinese ports of Foo-Chow and the defences in the river Min, without any formal declaration of war, it certainly seems a course unwarranted by honor and Christian kindness. It may be that certain Chinese officials have been derelict in the strict discharge of their relations to representatives of the French Government, but the offence could not have been so great as to merit so cruel a retaliation. The attack upon the forts at Foo-Chow have been characterized as most disgraceful to the civilization of the West. The French admiral passed up the Min with his fleet, and fired a salute, apparently as a matter of courtesy, while passing the forts. He was permitted to pass because the commandant regarded his action as entirely friendly; but, having received an advantageous position, behold! the admiral opens a fierce cannonade, and succeeds in destroying the forts and war-ships of China. The sud-

denness and rapidity of the attack placed the poor Chinese at his mercy.

The portrait of Admiral Courbet shows a man of force, talent, and ambition. He has pluck and courage, and not a little prudence and tact. He is quick in perception and alert to surrounding conditions. His love of applause is decidedly marked, and therefore the desire of preferment might lead him to do things that in cool moments his judgment and sympathy would not approve. He is an excitable man, and acts quickly, and aims to do his work thoroughly. He has been in the French navy thirty-six years, and has taken part in many important operations. It was not, however, until 1880 that his name became widely known. In that year he was made Governor of the colony of New Caledonia. His administration was the subject of much criticism, favorable and unfavorable, but was maintained, notwithstanding, on the same lines of policy and with much dignity. When, in the judgment of the ruling statesmen of France, it became necessary to occupy

Tonquin, Courbet was intrusted with the command of the naval squadron which successfully assisted in the necessary operations. The results, which were not achieved without considerable bloodshed, gratified France with territory and the virtual surrender of the ruler of the country to French domination.

The Chinese Government would not relinquish its claim to Tonquin as a part of Chinese territory, and regarded the assumptions of the French as insolent and despotic, and so when General Milot, in command of the French land forces, advanced to Langson, he was attacked by Chinese soldiers. For this, France at once demanded an indemnity of \$80,000,000, alleging that China by this attack upon French soldiers had broken a treaty that conceded special privileges in Tonquin, and on the refusal of the Chinese to pay the preposterous demand, Admiral Courbet was intrusted with the task of making a display of French power which should compel payment.

We think that the opinion of a Chinaman of New York expresses a pretty fair idea of the trouble. He remarked to a reporter who had "interviewed" him: "It likee this: I come to your door and lickee you and I wantee you to pay money to me or I lickee you. You think that light? What kind a 'ligion that?'"

Although the success of France may serve to stimulate the war feeling in that country, and the resources of China may still buoy her up with the expectation that she can better afford to continue the contest than her enemy, both countries would gain by the resumption of peace-

ful relations between them, and the interests of all the powers doing business in the treaty ports would thereby be promoted. The most able statesman in China, Li Hung Chang, is opposed to war with France, for reasons that must be obvious, yet the large war party among



ADMIRAL COURBET.

the Chinese certainly have reason for their animosity to France. We hope that the French Government will not persist in these aggressions. They have gone far enough, and an early withdrawal of the invading forces will be the best apology that can be made for its violent and murderous treatment of a wretched people.

OLD SUPERSTITIONS.

GENERAL education has accomplished wonders for the minds and lives of the masses, but in nothing has it wrought so radical a change as in eradicating the ignorant bigotry and superstitions of the people. There has, indeed, been almost too violent a reaction, leading many to err upon the opposite side,

in renouncing all faith and belief in spiritual matters as too absurd for aught but childish minds to rest upon.

Draw into conversation some dear, intelligent grandmother, like our charming old neighbor, who has seen eighty-seven useful years. As she tells you long stories of "ye olden times," when she was young

and blithe and bonny, take notice of the homely superstitions that adorn her tales. Listen till you see the good house-mother drop the red-hot horseshoe into the churnful of refractory cream, and the family gathering seriously to consult the well-thumbed almanac, intent upon discovering if the "signs" are right when the last new baby is to be weaned, the huge porker slaughtered, or the golden corn sowed. She will tell you, too, of mysterious lights, portentous dreams, and midnight sounds—the warnings to prepare for sickness or death. What magic charms, too, did the rustic belles test, and how the mirror revealed to the eyes of one expectant maiden, not the face of the future husband, but a hideous coffin.

While one class of antiquaries search out with eager zeal the more palpable relics of olden days, another evinces as much enthusiasm in gathering up these quaint old signs and omens so soon to be forgotten.

Mr. Barnes, in his very interesting chapters on the folk-lore in his native Dorset, tells us how when a child he was taught in his old English home to repeat this bed-charm :

" Matthew, Mark, Luke, and John,
Be blessed the bed that I lie on.
Four corners to my bed,
Four angels all aspread ;
One at head an' one at feet
An' two to keep my soul asleep."

Then, too, he tells us of the young people shooting apple-seeds from between their fingers, as they repeated these lines :

" Kernel, come, kernel, hop over my thumb,
And tell me which way my true love will come ;
East, West, North, or South—
Kernel, jump into my true love's mouth."

The children also chanted the old "fly away home" verse to the "lady bird," which was called by the peasants "God Almighty's cow." Again he tells us of the revolting notion in Dorset that to eat nine lice will most certainly cure the jaundice. Dock is prescribed as a sure antidote to the sting of the nettle, but must inevitably be accompanied with the words, "Out nettle, in dock." White

specks on the finger-nail indicate gifts, with this modification :

" Gifts on thumb, sure to come ;
Gifts on finger, sure to linger."

Much of this doggerel has had its origin traced back to ancient Germany. In Lancashire the shooting rays of the aurora borealis are the "Merry Dancers." One will hear a puff-ball dubbed the devil's snuff-box, the dragon-fly is his darning-needle, and the black beetle his coach horse.

In Devonshire robin redbreast is called "Farewell Summer," and in many localities, especially Yorkshire, the people have a superstitious horror of killing one of the little creatures, believing its death will cause the cow to give bloody milk—an idea also prevalent in Switzerland. The little urchins of Suffolk never place the robin's egg upon their strings, lest they suffer the expected penalty of broken limbs for their cruelty.

In the old Yule season, that lasted from Christmas until Twelfth Night, every day had its traditions—the cattle fell upon their knees at midnight, Christmas eve ; at Glastonbury grew a hawthorn that blossomed every Christmas morn, or, failing, presaged some grave disaster. This remarkable shrub was said to be a descendant of the staff of Joseph of Arimathea, which was planted upon the eve of the crucifixion, and at once pushed forth leaves and blossoms. Twelfth Night, the festival of St. Simon of Stylites, is supposed to have been instituted in honor of the Eastern Magi, who brought their precious gifts to the infant Jesus.

In Sweden all must remain in their homes on Yule-night, for it is then the trolls and demons walk about and the dead leave their graves. We read the most beautiful bird-legends that come from far-away Sweden. When Christ was suffering, a little bird perched upon the cruel cross, crying, "Svala, svala Honom !" ("Console, console Him !"). Since, she has been called svala, or swallow, and fortunate will be the man who is her protector. Hovering over the

Saviour, another bird called out, "Styrk, styrk Honom!" ("Strengthen, strengthen Him!"), and has ever since been called styrk—stork, and brings good fortune wherever she builds her nest. The turtle-dove ever repeats the mournful plaint she uttered over that scene on Calvary, "Burri, burri, burri!" The cross-bill sought to pull out the nails that held our Lord to the cross, and ever since has there been the stain of that sacred blood upon his tiny bill.

In some times and countries a show of cats, like the one that attracted so much attention in Boston, would be regarded with horror. In Italy and Spain a gathering of cats is even now regarded as a meeting of witches, on some diabolical business intent. The Tuscan believes when a man desires death the evil one is passing before his eyes in the form of some feline. In Germany it is a bad sign to dream of a black cat at Christmas, and in Hungary our household pet is regarded a witch after a certain age. In some of the Catholic countries the cat is sacred to St. Gertrude, and in the northern mythology, the car of Freyja is drawn by a team of pussies. Again, she was created

by Diana, and Ovid relates that her form was appropriated by that fair goddess in a flight from the Titans.

While each birth-month has its significance and emblematic jewel, as named in a late Number of the *Home Magazine*, the days of the week have inspired these lines of poetic jingles:

"Sunday's child ne'er lacks in place;
Monday's child is fair in face;
Tuesday's child is full of grace;
Wednesday's child is sour and sad;
Thursday's child is loving and glad;
Friday's child is loving and giving;
And Saturday's child shall work for his living."

"Never rock an empty cradle—it will injure the child," we heard an old lady say with a solemn shake of her head, and the same dear old sage tells us if the baby doesn't tumble out of bed or down-stairs before it is a year old it will grow up foolish. One must not cut his nails or sneeze on the Sabbath, lest the father of evil will be at their elbow during the week.

A volume might easily be filled with these old saws and superstitions; but another sign comes into our mind with great force, and warns us to let it be the last, as it is the most truthful: "Long stories make deaf ears."
A. L. R.

A WELL-DRESSED WOMAN.

A MONTHLY magazine that commanded general respect for its literary qualities while it lived, for now, alas, it is extinct, once published this neat description of a well-dressed woman, who was met one day by the writer:

"She was not beautiful, nor even pretty; and so, madam, you may let down your nostrils and uncurl the corners of your mouth. She had not even a fine figure, in which very important respect she was only 'fair to middling,' as they say in trade. But as she approached us we were conscious of a subtle sense of pleasure. As she came nearer and nearer this increased, and when it became all too certain that it was not her beauty which awoke this delightful sensation there was

a moment of thoughtful hesitation in the mind, and then it became clear enough that it was the woman's dress that was so beautiful, and that it was the extreme rarity of this particular kind of beauty which made the sensation we have mentioned. Of course we must tell what this dress was. Nothing easier. It was a simple loose gown high upon the shoulders, girdled closely but not tightly at the waist, and falling in light easy folds, not to the ground, but nearly to the ground behind and not quite so low before, so that as the woman walked not even the hem of her garments swept the sidewalk. There was not a flounce, or a ruffle, or a plait, or a patch of trimming of any kind upon the dress, the skirt of which was ample enough

to afford perfect ease of motion and to be graceful. but was not full, was not tied back, did not hang over a bustle, and there was no overskirt. The material was muslin, or some cotton stuff: and—oh, madam! read, mark, and inwardly digest—it was not starched. It did not stand stiff, or break up into patches, or make a rustling and a crackling as she walked. It was soft in texture, soft in its outlines, and noiseless. Had it no ornament at all? Yes, indeed. Around the bottom hem, at the wrists, and at the throat, there was a narrow figured border of blue, beautiful in design and in color,

which gave the dress a perfect finish, and was attractive in itself without being at all obtrusive. Over this dress she wore a short, light garment of the same material, sleeveless and falling to the hips. This costume might have been worn by a Greek woman, by Aspasia herself, to the delight of Pericles, and yet there was nothing about it which seemed *outré* or even strange, except its simple elegance. Who the woman was who thus clothed herself with beauty will probably ever remain a fact unknown in the modern history of costume." What a loss to society.



PREVENTION OF DECAY OF TEETH.

DECAY of the teeth is a very common affection. Very few persons forty years old or upwards possess a good set of teeth. So rare is it for a person past middle-age to have a set of sound teeth, that an instance of the kind is deemed quite remarkable. Many have artificial teeth almost as soon as they arrive at adult age. Many children lose by decay their first set of teeth before the appearance of their second set; the second set begin to decay almost as soon as they appear, and are soon gone. So common has been the early decay of teeth, that it does not arouse the attention of the parents as it should. So common have such occurrences become, that they have come to be regarded as a matter of course, and instead of arousing the parents to seek the cause of this premature

decay, and try to arrest or prevent it, they too often pass it by unheeded, and send the child to the dentist for a new set of teeth.

Much may be done in the way of preventing the decay of teeth, and it is very important that the work of prevention should be attended to. No artificial teeth are as useful as the natural teeth. They are better than no teeth, but are at the best a poor substitute for the natural teeth. The expensiveness of artificial teeth, besides the trouble in wearing them, also renders it desirable to preserve the natural teeth. It is also very desirable that the teeth of children should be preserved sound in order that the jaws may develop fully and symmetrically. If the first teeth decay only so that they have to be removed several months or years

before the permanent teeth appear, the teeth on each side encroach upon the space, so that when the permanent tooth does appear, there is not enough room for it, and it becomes crowded between the others. In short, it is desirable in every respect that the teeth should be preserved from decay. Sound teeth are not only the most beautiful, the most healthful, and the most useful, but also the most economical, and most desirable in every respect.

CAUSES OF DECAY.

A glance at the causes of decay will be useful in enabling us to understand the means of prevention. The teeth are principally composed of phosphate of lime, a substance which is easily decomposed by acids. Bone is also principally composed of phosphate of lime. Place a bone in dilute muriatic acid, and all of the phosphate of lime may be dissolved out, and nothing but the soft animal matter will remain. Hence it is that acids generally are very injurious to the teeth. Experiments performed by Dr. A. Wescott have shown that both vegetable and animal acids readily act upon the bone and enamel of teeth. Placing teeth in acetic and citric acids, and allowing them to remain forty-eight hours, they become so corroded that the enamel can be easily removed with the fingernail. Acetic acid diluted as vinegar is in common use as a condiment, and is also found in the mouth whenever substances, liable to fermentation, are suffered to remain about the teeth for any considerable length of time. Particles of food allowed to remain in contact with the teeth may decay, and form acetic acid which will injuriously affect the teeth. Citric acid or lemon juice acts very injuriously upon the teeth when brought in contact with them. Malic acid or the acid of apples in its concentrated state injures the teeth. Muriatic, sulphuric, and nitric acids in diluted forms are extensively used as medicines, and are very injurious to the teeth, unless the mouth is rinsed after taking them with an al-

kaline solution such as a teaspoonful of common soda in a pint of water. Dr. Wescott found that sugar had no effect upon the teeth, until by fermentation acetic acid had been formed. In some cases of disease the secretions of the mouth become acid, as is seen in cases of diseased gums, or diseased mucous membranes, and in disorders of the stomach and bowels. If such states continue long the teeth, being constantly bathed in acid secretions, decay very rapidly. The secretions of the mouth may be made acid by regurgitation from the stomach, and thus become injurious to the teeth. Particles of food left upon the teeth or between them, soon begin to ferment and injuriously affect the teeth.

NATURALLY DEFECTIVE TEETH.

Some teeth decay more readily than others. Heredity seems to notably affect the teeth—children born of parents who early lost their teeth from decay, usually lose their teeth early. Defects of organization seem to be transmissible as regards the teeth, as well as regards other portions of the system. What can be done, it may be asked, where a child inherits from its parents defective teeth? Much may be done even in those cases if the parents begin soon enough. The teeth are formed from the material in the blood. If the bone-making material is deficient, then the teeth will be likely to be defective. If the blood is rich in bone material, and the health is maintained at a high standard, the teeth will be likely to be well organized. The food eaten by many mothers while nursing their children is deficient in bone-making material. They live largely upon fine, bolted flour, which contains a deficient quantity of phosphate of lime. They also eat freely of pastry and other rich food that is ill-adapted to the wants of their system and that of their children. As a consequence, the milk the child receives is deficient in lime-salts, and the teeth are imperfectly formed. The wheat grain contains a sufficient proportion of phosphate of lime, but it is

stored up in the outer layers of the covering usually received with the bran. Bran contains fourteen times as much material for bone and muscle as fine flour does. Unbolted wheat flour or crushed wheat are much better articles of food for mothers and children than superfine flour. If the teeth of the mother are poor, special pains should be taken to insure good teeth to the offspring. The mother should begin before the birth of the child to live upon such food as is rich in bone-making material, and should continue to so live while nursing the child, and then when the child begins to eat solid food, it should also be fed on such as is rich in bone material. Such management should be continued not only till the first set of teeth have all appeared, but also until after the second set have all appeared. If the first set of teeth in every child is poor, great care should be taken to insure a better permanent set. They should not be fed upon bread made of fine flour, pastry, and confectionery, but should be well fed with good milk, wheat-bread, oatmeal, corn-meal bread, vegetables, eggs and meat, and plentiful exercise in the open air enjoined.

Sugar of itself is not injurious to the teeth. But an excess of sugar or confectionery may prove injurious. Sugar is far preferable to confectionery. By eating too much sugar, the stomach may become disordered, acids be formed, and regurgitate into the mouth, causing an acid state of the mouth, and thus be injurious to the teeth. Instances have been recorded where large quantities of sugar were eaten for years without injuring the teeth. It is said that "Henry, Duke of Beaufort, who died in 1702, ate nearly a pound of sugar daily for forty years. He died of fever in the seventieth year of his age. He was never troubled with cough, his teeth were firm, and all his viscera were found after death quite sound." In Cleland's Institutes of Health, Mallory is described as a great lover and eater of sugar, and is said to have lived to be about one hundred years of age,

and to have had good teeth until fourscore, when he cut a new set. Sir John Sinclair, in his work on Health and Longevity, declares that his grandfather, who lived to be one hundred years old, had all his teeth strong and firm at eighty, and that he remained in good health and strength till his death. These circumstances are attributed to the frequent and free use of sugar, of which the old gentleman was a great eater, taking it on his bread and butter, in ale and beer, adding it to all the sauces used on his meats. The negroes of sugar countries are remarkable for their white and sound teeth, although they eat large quantities of sugar, and grow fat on it during the season of making it. These instances indicate that sugar is not of itself injurious to the teeth of children, and should not be withheld. Indeed, it seems that sugar is required for the proper sustenance. The universal liking for sugar and sweet things shown by children is no doubt founded upon a want of the system, and should be gratified.

CLEANLINESS PRESERVES THE TEETH.

Cleanliness is all-important in the preservation of the teeth. Perfectly clean teeth will not decay. Food remaining in contact with the teeth by lodging between them, or somewhere about them, is a very prolific source of caries or decay of the teeth. An article in the *British Medical Journal* says: "The general prevalence of dental caries is chiefly owing to food remaining on and between the teeth after meals, from breakfast-time till the following morning, when according to custom, the teeth are brushed; brushed, but probably not cleaned, as the brush is more often used to polish the surface merely than to assist in removing what has accumulated between them. Experiments have been referred to, that prove the solvent action of weak acids on the teeth; and I think it will be conceded without proof, that were portions of our food mixed and moistened as in mastication kept during the night at the high temperature of the mouth, the com-

pound would become sour. It follows that dental caries must continue to prevail as now, while it is the custom to allow food to remain in contact with the teeth all night. The following observations show the dependence of caries on food remaining in contact with the teeth. When the teeth are wide apart food is not retained, and they generally remain free from caries. The lower front teeth are seldom attacked by caries when, as is generally the case, the spaces between them are closed to the entrance of food by tartar. The backs of all teeth, upper and lower, being kept free from food by the tongue, are seldom affected by caries. Lodgment of food takes place between the bicuspids, between the molars in the depression on the masticating surface of these teeth, and on the broad walls of the molars, and these are the chief seats of caries. While mastication is performed by the molars and bicuspids, the upper front teeth remain free from food and caries; but when they themselves are

made to do the work of lost or diseased molars, and the food gets between them, caries is certain to follow before long. Further proof can not be required that, if no food remained in contact with the teeth after eating, they would be free from caries, unless acted on by acidity from other sources. The only indications, therefore, for the prevention of dental caries are the neutralization of acid applied to the teeth, and the removal of food before it has become acid."

In conclusion it may be said that the greater part of the decay of teeth might be prevented by scrupulous cleanliness and attention to the diet. The teeth ought to be freed from all particles of food between them by the use of a wood or quill toothpick after each meal, and the use of the brush at least every night. It is advisable to use a little castile soap on the brush, which will neutralize any remaining acidity, and assist in preventing decay.

H. REYNOLDS, M.D.

INDIVIDUALITY IN RELATION TO PHYSIOLOGY.

IN the analysis of the human mind the percepts are justly assigned to an important position. The organ of Individuality is the first to be exercised, and supplying, as it does, largely the material for the action of the other organs of the brain, its functions become of special importance. It is not our purpose to call in question the accepted views in regard to this organ, yet there is, we think, a strong probability that at least the extent of its development and activity is determined largely by conditions existing in the body in general. Our perceptions of external objects are conveyed to the brain through the nerves of some one or more of the five senses, and if the nerves themselves in any particular individual be disordered or imperfect, the perceptions conveyed through their medium must also be disordered or imperfect.

To investigate them, the causes regulating the excitability of the nerves be-

comes an inquiry of great interest. It is well known that there is a great variation in the speed or rapidity of the vital actions or organic processes in the bodies of different persons. Two persons may expose themselves to a contagious disease at the same time, and yet it may make its appearance in one much sooner than in the other. It is also well known that there is a variability in the rapidity of the stroke of the heart in different persons. Now, when we remember that oxygen is the element which keeps our fires burning; that the chemical changes taking place in many of the organs and in all the tissues is of the same nature as combustion, and that, therefore, oxygen is the great stimulus of all the vital processes, we can readily understand that a rapid pulsation of the heart will produce a quick circulation of the blood; that this will carry an abundance of oxygen to all the tissues, and thus the rapidity of

the vital actions will be highly accelerated. Now, it is another well-known fact that every action of any organ consumes a portion of the actual substance of that organ by the absorption of oxygen. The oxygen, by burning up a portion of the substance of the organ, supplies the motive force for its action. Thus it is plain that if an organ is well supplied with oxygen, it possesses a store of force ready for instant use, and is hence much more easily set in motion.

But again, as the action of any organ is always at the expense of itself, any action must produce more or less decomposed material. Now this material, so long as it remains, is a clog to further action of the organ. We know that if carbonic acid gas accumulates in the blood, it acts as a stupefying poison, because every action produces it, and its presence in the blood retards the further production of it, and consequently retards all vital action to which its production is necessary. There is no doubt that the presence of the products of decomposition in the particular tissues in which action has just taken place, is as prejudicial to further action in them as the presence of carbonic acid gas is in the blood to the action of the general system. Now, if the circulation be rapid and vigorous, the products of decomposition in any organ will be quickly and completely removed, and hence the organ will be in a condition for further action.

If these principles be correct, the varying activity or excitability of the perceptive in different individuals can be understood. In a person whose heart pulsates rapidly, the blood laden with oxygen is carried freely to every nerve. The nerves then having an abundant supply of oxygen always at hand ready to enter into their substance, can easily be set in motion. Consequently, any external stimulus, the occurrence of any event which can be perceived by the five senses, readily sets the nerve into action, and the impression is carried to the brain. But if the pulsation of the heart is slow, the nerves in common with other organs

do not receive an abundant supply of oxygen, and hence their action is not so readily produced by external forces, and the individual is not a close observer.

But this is not the only cause contributing to this result. The nerves in their action, like every other organ, give rise to certain products of a lower grade—waste products. It is well known among physicians that the presence in the secretions in increased quantity of the phosphates—one of these waste products—is a certain indication of excessive brain or nerve work. Now the strong tendency of any two liquids or gases to diffuse or mix with each other, even when separated by a moist membrane—which tendency is also possessed by solids when dissolved in liquids—proves that there is a strong attraction between substances of different natures. It is evident then, that the production of any chemical compound will be much more active if surrounded by substances different from itself, as its production will then be predisposed by the law of attraction between different substances. Therefore, if the products of nerve action be removed thoroughly from the nerve, its further action will be greatly assisted. Furthermore, the rapidity of chemical action in all chemical solutions is in direct proportion to their strength and purity, and manifestly the strength and purity of the fluids pervading the nerves will be much improved if the products of nervous waste be thoroughly and quickly removed. A rapid circulation will do this, not merely because it is rapid, but also because it brings an abundance of oxygen, and the law of the diffusion of fluids will produce an interchange of position between the oxygen and the products of nervous waste which would effectually clear the nerve of these products. Therefore a rapid circulation will increase the activity of the nerves both by supplying them abundantly with oxygen and by removing thoroughly the waste products of the nerves. Now it is plain that the greater the irritability of the nerves, the more readily will external objects and events make an im-

pression on them. Therefore a rapid circulation by thus increasing the activity or excitability of the nerves, must improve the perceptions of the individual possessing it.

The vital temperament is characterized by a strong, quick pulsation of the heart, and this temperament is essentially distinguished by active perceptives. The pulsations of the heart in childhood are much more rapid than in adult age, and the spring-time of our life is the portion of our existence in which the perceptives are especially active. It is well known that retired pursuits diminish the rapidity of the heart's pulsations, and it will not be denied that the active man of business usually excels the student in the power of observation.

There are no more interesting queries than those which relate to the boundary line between the mind and body. It is here that the principal stumbling-blocks in mental science have always been encountered. Undoubtedly here is the point where judicious inquiry may expect more ample results, and when once the boundary between mind and body shall have been accurately defined, we may expect progress in the study of mind unparalleled by the accomplishments of the past.

NEWMAN DAVENPORT.

HEAD OR FEET FOREMOST IN CARS.—
There has been some discussion as to whether a person lying in a sleeping-

car should place his feet toward the locomotive or the reverse. One man who travelled about 48,000 miles a year with his back to the locomotive became extremely ill with a nervous affection, and got well after he had given up the habit. His doctor believes that persons who travel much by rail should "take all sorts of positions." A German physician, Dr. Outten, says that if a person lies with his feet toward the engine, the movement of the car tends to draw the blood from the brain to the feet, cerebral anæmia is produced and then sleep. But if he lies with his head nearer the locomotive (as is the custom in Germany), there is produced a cerebral hyperæmia, incompatible with sweet repose. Dr. McBride, of the Milwaukee Insane Asylum, advises exactly the reverse. He holds that with the feet toward the engine the blood tends to the head. In the starting of a train momentum is first given to the car. Bodies in the car resist for a moment, and then acquire the same momentum. But on the least increase of speed they offer resistance; they are not disposed to go as fast as the car. A round marble placed on a board will roll back when the board is moved rapidly, and he thinks it reasonable to suppose that in a human body the blood constantly offers resistance to the motion of the train. Therefore, with the feet to the engine, the blood will seek the brain. For this reason Dr. McBride urges sleeping with the head toward the engine.

WHY WOMEN BREAK DOWN.

IS it not astonishing that in so many rural families there are three or four, or even more, sturdy fellows who owe their life and all their robusticity to a mother who is the very image of sickness and physical frailty? And the girls, too, are they not as a class, taken from the stand-point of mere physical force, poor, miserable creatures? And is not the work they can perform, without undue strain on their system, hardly worth the cost of their food?

I do not contradict the statement of a writer in the PHRENOLOGICAL as to the fact that three full meals per day are too much, not alone for the housewife to be drudged with, but also for the men to stuff themselves with. Graham mush, biscuits, and coffee for breakfast, and milk and bread for supper, and a more variegated meal at noon, make not only good "tops," but also good "toes," and should be all that the men folks exact. But ought not the housewife to be, as a

rule, in such a condition that she would laugh at being pitied for having to prepare three meals per day for the men folks? Ought she not to have as keen an appetite as the boys, and to like to "top off" her dinner with a slice of good pie, cake, or other dainty?

It is principally this point I want to dwell upon, and which in my opinion most writers on household life, and the duties of wives and mothers, fail to take into their consideration, when they complain that the housewife is subject to excessive drudgery because of the dietetic or other habits of the men. Has the delicacy of our nowadays wives really been predestined by nature? I could never find a plausible reason to answer this question in the affirmative. But there is nothing in nature to justify the frail constitutions of the women folks in the wealthy nations of the nineteenth century, and if our housewives are suffering under the load of labor, it is not altogether due to unjust exactions by the palates of their husbands and boys, not to the labor of kneading the dough for the cakes and pies the boys want to "top off" with, but to the miserable bodily condition of the girls that become housewives.

Look around you in the lower walks of life, and see what a woman can be and do. Your Irish women would not mind to bake the whole day if they were sure to have a slice themselves of the good things put on the table. In Genoa, Italy, you find women who earn a livelihood by carrying loads on their heads which a negro drayman in Florida would consider large enough to make a load for his mule; and in Holland I have myself met Tri-erian girls whom I, although I claim to be a good average sized man, and was at that time a strong young fellow, should not have liked to fall out with for fear of getting a most disgraceful thrashing. If the female constitution forbids concentrated exertion, there is a certain tenacity in the female body, with its powerful lumbar development, which is only as an exception found to the same extent in

man. I had once a servant-girl who answered, when my wife was going to refuse her request to make a trip home on foot in the evening, from a point some miles distant, because she thought the girl would be assaulted by men: "Oh, Madame, a crowd is not dangerous to a lonely girl, and I do not mind two or three." She was an anatomical perfection, save her head, which was just as perfectly a phrenological misery, so that I very often used to say to my wife, who was suffering under the load of her household work in spite of a help like this: "What a woman would you be if your head was resting on such a body!" I assure the ladies, who talk about household work being necessarily a burden, that that girl did not feel any burden. Once she had a chance to go to a ball the very night before washing-day, and a big pile it was that was waiting for her, and my wife disliked to let her go. "Don't be afraid, Madame," she said, "if I dance the night through; it goes all the better; then I have something to keep myself busy with while I am washing." She went, and on the next morning, at five o'clock, there she stood at the wash-tub as gay as a lark, and at nine o'clock in the evening there was the clean linen hanging on the horse; and if there had been another dancing party, off she would have gone, and skipped another night's rest without missing her work the ensuing day.

Take it for granted, work is the nicest occupation you can find in the world, if you are healthy; and the most tedious thing in the world is doing nothing, because you never get through with it; and if the girls that the boys make their wives of, were such as they ought to be, there would be no occasion to grumble about the cooking, but everybody be content if they only could have enough of it to do.

Now then, it is a general belief that higher mental endowments are a hindrance to good muscular development or physical strength generally, and *vice versa*. No greater error than this! The proportion of mental and physical pro-

penalties being investigated statistically, it might prove a fact that spinal disease and muscle flabbiness are mostly found among brain-workers. Dyspepsia is prevalent among them, too; but there is no need of it. A stout spinal column is as good a prop for the intellect as for biceps, and triceps, and quadriceps femoris, and all the other powerful muscles which constitute mainly acrobatic endowments, and which depend for their nourishment and action, just as much as the mind, on the cerebral nervous system. And more than that: there is nothing in the body which contributes to health, strength, and long-livedness so much as the ganglionic nervous system; and it is a biological fact that well-constituted women have the ganglionic system most liberally developed. It is an error to think that muscular exercise is a hindrance to mental productivity. There is no healthier interruption of assiduous brain-work and close mental application than muscular exercise; and many an essay would be sounder in its argumentation if its author had put between its first and second half some spading or harrowing or weeding in his or somebody else's garden. Muscular action makes healthy blood, and healthy blood helps to make sound ideas.

There is an anatomico-physiological point which constitutes a difference between man and wife. I am well aware of that. It is the one that is always put in the foreground when the question under survey is made a topic of. But that point is in itself not by any means so strong as the common belief goes. The difference is sometimes a vast one, but it was not so originally; it was made so by neglect, and all kinds of abuse, and the humbugs of society and civilization. To be plain, the difference is in the contents of the pelvis; and, as the world goes, it is as if the whole female sex, in certain walks of society, were blighted in that very region. Our women hospitals are crowded with that class of patients, and gynæcology has become one of the best-paying practices. But is any defect of nature herself at the bottom of this deplorable

state of affairs? By no means. It is society which is at fault. The cause lies in the miserable bodily condition of the girls who marry, and who after their first childbed break down, so that they can not, without the utmost suffering, do the work of the home.

It is a pathological commonplace, with which the most ignorant backwoods surgeon is conversant, that a joint, when put for a while out of use, gets stiff; a broken limb, having been tied up in a splint for five or six weeks, has, by slow exercise, to be restored to its former mobility, in spite of the joint itself not having been implicated at all; and when a little girl is getting so big as not to be called any longer a baby, how anxious the mother that she should behave "decently," by which decently is understood that, when on her feet, she should never run, romp or play like a boy, but walk demurely and staid like the pencils in her tin-box. Ten, twenty years, perhaps, having been spent that way, she is sent into the childbed, and then this long and cruel deprivation of exercise tells on the strength of the pelvic region and on the recuperative powers of its organic contents. Then, too, the whole system is put to the test. A girl in the time of her first development, when she would mostly need varied exercise, has scarcely anything else to do than walk a little way to school and home again, and then sit down to her lessons, and the requirements of bodily development are hardly thought of. The framework of the pelvis is not a single, solid bone, but composed of a number of bones which are strongly knit together, and to a certain extent form joints; and by this contrivance nature shows that she wants to impart to that section of the body the utmost degree of flexibility, and more even in woman than in man, because the requirements of parturition ask from it so much greater service. And again, the organic contents of the pelvis, peculiar to the female, is not an integral part of the whole system of the body, but an independent creation of itself, limited in its

function to a certain number of years, and returning after that to its original insignificance in the child, without any detriment to the system by such obliteration. Its action is, therefore, largely without the support of the other organs and contrivances of the body; it has, so to say, to shift for itself; and this ought to be a reason why girls should have plenty of bodily exercise, so that, by different movements and positions, the pelvic contents would be strengthened and prepared for later emergencies.

Another point: It is a great mistake that most educators are laboring under, viz., that children prefer to be idle. They like to work, but it is work of their choice. Can the girls appreciate household work, or get a fancy for it, if they hear it so frequently called drudgery, menial occupation, torture, and martyrdom, and that too with a countenance of such crucifical expression that, be it ever so justified in the particular case of the mother, can not fail to impress the youthful mind with a repulsion for it, and at the same time tend to lead a girl to think that the shopping, visiting, prattling girl of wealth is the paragon of fe-

male bliss and happiness! Oh that we could impart health and sturdiness to wives such as they ought to enjoy and have; and then we would have them accustom their girls early to work with them, instead of wasting their time over the "learned" trash they are stuffing their brains with, and what a corrupt civilization has the "cheek" to call "education." Then a different face would be put on household matters, and also put an end to those lady bores who deprive sensible people of their valuable time because they have not wit enough to kill theirs. Housewives then would laugh at the idea that while the boys at their hard work outside,—plowing, harrowing, hauling, and cultivating,—get strong and sturdy, the women at home must needs break down under their hard work of kneading and cooking for three meals a day. Then the women would enjoy the cake and pudding as well as the men; and besides, when such labor exacts more than what is just and reasonable, they would be better able to defend themselves and assert their rights.

C. A. F. LINDORME, PH.D., M.D.

ANIMALS AS PHYSICIANS.

M. G. DELAUNAY, whose notes on several topics of interest to students of human and animal intelligence have drawn more or less attention the past few years, in a recent communication to the Biological Society of Paris, observes that animals instinctively choose such food as is best suited to them. M. Delaunay maintains that the human race also shows this instinct, and blames medical men for not paying sufficient respect to the likes and dislikes of the patients, which he believes to be a guide that may be depended on.

A large number of animals wash themselves and bathe, as elephants, stags, birds, and ants. As a general rule, there is not any species of animal which voluntarily runs the risk of inhaling emanations

arising from their own excrement. Some animals defecate far from their habitations; others bury their excrement; others carry to a distance the excrement of their young. In this respect they show more foresight than man, who retains for years excrement in stationary cess-pools, thus originating epidemics.

If we turn our attention to the question of reproduction, we shall see that all mammals suckle their young, keep them clean, wean them at the proper time, and educate them; but these maternal instincts are frequently rudimentary in women of civilized nations. In fact, man may take a lesson in hygiene from the lower animals.

Animals get rid of their parasites by using dust, mud, clay, etc. Those suffer

ing from fever restrict their diet, keep quiet, seek darkness and airy places, drink water, and sometimes even plunge into it. When a dog has lost his appetite, it eats that species of grass known as dog's grass; which acts as an emetic and purgative. Cats also eat grass. Sheep and cows when ill seek out certain herbs. When dogs are constipated they eat fatty substances, such as oil and butter, with avidity, until they are purged. The same thing is observed in horses. An animal suffering from chronic rheumatism always keeps, as far as possible, in the sun. The warrior ants have regularly organized ambulances. Latreille cut the antennæ of an ant, and other ants came and covered the wounded part with a transparent fluid secreted from their mouths. If a chimpanzee be wounded it stops the bleeding by placing its hand on the wound, or dressing it with leaves and grass. When an animal has a wounded leg or arm hanging on, it completes the amputation by means of its teeth. A dog, on being stung in the muzzle by a viper, was observed to plunge its head repeatedly for several days into running water. This animal eventually recovered. A sporting dog was run over by a carriage. During three weeks, in winter, it remained lying in a brook, where its food was taken to it; the animal recovered. A terrier dog hurt its right eye; it remained lying under a counter, avoiding light and heat, although habitually he kept close to the fire. It adopted a general treatment, rest and abstinence from food. The local treatment consisted in licking the upper surface of the paw, to which he applied the wounded eye, again licking the paw when it became dry.

Cats, also, when hurt treat themselves by this simple method of continuous irrigation. M. Delaunay cites the case of a cat which remained for some time lying on the bank of a river; also that of another cat which had the singular fortitude to remain for forty-eight hours under a jet of cold water. Animals suf-

fering from traumatic fever treat themselves by the continued application of cold. In view of these interesting facts, we are forced to admit that hygiene and therapeutics, as practiced by animals, may, in the interest of psychology, be studied with advantage.

EFFECT OF DARKNESS ON HEALTH.—

A correspondent of the *National Live Stock Journal* relates the following: "We tried an experiment, some years since, to test the effect of absence of light upon a calf. We had two deep-red calves of the same age (sixty days), one weighing 180 pounds and the other 182 pounds. The latter we placed in a dark room, with a trough that could be filled by a spout through a partition. The other was confined in the same amount of space, but in full light, and both were fed exactly alike for the next three months. The object was to test the effect of light upon such a growing animal. At the end of that time, the one in the light weighed 430 pounds, and the one in the dark weighed 360 pounds; and its color had faded to a very pale, dirty red. Its eyes were so much affected when admitted to the light, that it kept them closed most of the time for the first week or two. The two calves were kept on together, but the one from the dark room never fully recovered from this three months of darkness. It never recovered its bright red color, although the color improved. Any one who noted these two calves during this experiment would never after doubt the impolicy of a dark stable. Sunlight is indispensable to healthy vegetable and animal life. Every farmer sees his cat and dog select a belt of sunshine on the floor to lie and bask in; and if he will watch his cattle when turned out, he will find them seeking at once the sunny side of the barnyard. And with all these indications before his eyes, still the farmer keeps his animals in a dark stable, much to their discomfort and his pecuniary loss."

THE SCOURGE OF QUACKERY.

THE *Boston Journal of Chemistry* sets the following admonition before the public. It should be repeated frequently:

"The amount of money paid to medical quacks in this and other cities every year is much greater than is supposed, and the ingenious ways in which large sums are extorted from their frightened dupes should be better understood, not only by those who are in danger of becoming their victims, but by the officers of the law. We recently became cognizant of a case, which, although flagrant and cruel to the last degree, is no worse than hundreds of others occurring every day in the dens of these thieves scattered through some of the less frequented streets of the city.

"A gentleman, who had in his employ a young man of industrious habits and upright character, recently called upon us and stated that he feared the young man had fallen into the hands of a quack in the city, who was taking all his earnings, and endeavoring to fleece him of every dollar of his property. He had solicited the loan of seven hundred dollars, which he confessed he desired to pay to a French doctor (!), who proposed to cure him of a dangerous disease. The gentleman desired us to aid him in attempts to save the victim from the clutches of the quacks, and, as he had been unable to influence him, proposed that we allow him an interview.

"This we did, and learned that the young man really had no disease whatever; that fancying that he was sick, from reading the advertisements in a newspaper, he called upon the advertising doctor, who, after thumping his ribs and 'sounding' him with a stethoscope, pronounced him 'far gone' in consumption. He had already been taking his nostrums six months, paying large sums therefor; but at the last visit to the great French doctor, he had discovered another disease, which he could not undertake to cure for less than \$1,000 cash in hand. As a special favor to him, however, he would cure the malady for \$700 in advance; and this sum he was endeavoring

to raise by mortgaging his little property and rendering himself almost penniless. The quack was very urgent, telling him that 'death stared him in the face,' and if he did not raise the money at once and commence with his medicines, it would soon be too late.

"The young man, of fair intelligence, was completely deluded and thoroughly frightened by the artful quack, and it required much skill and effort to undeceive him. It is, indeed, strange that persons possessing a common-school education can fall into such traps; and yet there are thousands bound hand and foot to these miserable advertising quacks, who, operating through their fears, are extorting from them every dollar they possess. The sums taken are often very large, and the iniquity is of no mean proportions. To detect and punish these offenders is a difficult matter, but it does seem that some plan might be devised by which the cities and large towns should be rid of a class of impostors, more dangerous and unsparing than midnight robbers."

THE STATION BUFFET.

HEAR the rattle and the jangle
Of ten noises in a tangle.
'Tis the coming of the train,
As it comes to stop again—
Come to tarry at the station
Where the traveller gets his ration
At the stopping of the train.
Hear the trample—ample—ample
Of hasty feet upon the floor;
And see the crowding at the door.
Hear the dishes on the table!
Eat as fast as you are able;
Hear the clatter, clatter, clatter
Of the knives upon the platter.
Faster! Faster! What's the matter?
'Tis the engine's whistle blowing;
Fateful token—for 'tis showing
In a jiff the train is going.
Going—going—let her flutter;
Hurry up the bread and butter!
Going—gone! as sure as fate.
Were the rations that you ate
Half enough to make a dinner?
Hardly think it, hasty sinner,
For, unless Time's sands were beaten,
Hardly do I think you'd eaten
More'n enough to make a sample.

NOTES IN SCIENCE AND AGRICULTURE.

Sorghum's Value as a Saccharine Aliment.—The amount of crystallizable sugar in the juice of mature sorghum varies between fourteen and sixteen per cent. ; there are also present about one to two per cent. of uncrystallizable sugar ("glucose"), and two to three per cent. of other solids, part of which are removed from the juice by the purifying processes employed in sugar-making. When well purified, sorghum, cane, and beet sugar are identical in composition and properties.

Among other valuable data obtained during these investigations, were recorded the length of time after seeding before the plant reached its full maturity ; the length of the period during which the juice contained a profitable amount of available sugar (*i. e.*, the "working period"); the height, weight, and percentage of juice for the stalks of each variety of sorghum at each stage in its development ; and numerous other facts of importance to the practical sugar-maker.

The utilization of waste, or by-products, was carefully considered. It was shown that sorghum seed is very similar in composition and food value to common Indian corn, and that the yield of twenty or more bushels per acre will nearly or quite repay the farmer the cost of cultivation. This seed has been successfully used for fattening cattle and swine.

It was shown that the apparently worthless skimmings obtained in the clarification of the juice had a value as fertilizing material, and that from the washings of the tanks and evaporators a considerable amount of pure alcohol or vinegar could be produced at small cost.

The crushed canes ("begasse"), after the removal of the juice, make paper stock of excellent quality and medium length of fibre. This begasse may be preserved as food for cattle by the method known as ensilage, or may be burned under the boilers, thus furnishing heat, and ashes valuable for fertilizing purposes.—*Popular Science Monthly*.

Marvellous Engineering.—The London Inner Circle Railroad is a marvellous feat of engineering skill. It runs throughout its entire distance under the busiest centre of the largest city in the world, and the operations attending the excavation and construction have proceeded without serious injury in or interruption of business or traffic. Quicksands have had to be passed through, beds of old rivers spanned, lofty warehouses and massive buildings secured while their foundations have been undermined, and an intricate network of gas and water pipes sustained until supports had been applied to them from below. Added to this the six main sewers had several times to be reconstructed. Day and night the work has been carried on for eighteen months, and now the engineers are able to announce that their tunnel is complete.

The laying of the rails and the building of the stations are the only portions of the immense work that remain to be done, and in a very short time trains will be passing over the whole of this wonderful subterranean road.

Improvement in Fencing.—Mr. Fiero, of Milo Centre, N. Y., is the inventor of a new iron fence-post. The post is made of a single rod, which is bent at its middle and the two halves brought close together and parallel to form the body of the post, and the ends of the rod are made to diverge outward and then inward to form braces, and also adapt them for attachment to stone or other pedestals which are set in the earth. The fence is crimped at several points to form openings to receive the wires or rods, so that the braces stand at an angle, which enables them to afford a firm support against lateral pressure. The braces are so curved at the point of divergence from the post that offsets or shoulders are formed, which abut when the post is set in position, so that the wires are held firmly in place between the parts without the aid of staples or rivets.

In constructing a line of new fence, the holes for the stone pedestals are first dug, and one of them is set in its place. The wires are next arranged in position, and for this purpose they may be attached to temporary wooden posts set at long distances apart. The posts are then placed successively over the wires, the two halves being separated sufficiently to allow the wires to pass between them and be severally adjusted in their proper places in the opening. One foot of the post is then inserted in the hole of the pedestal, already set in the ground, and the other foot next secured to the other pedestal, which is then forced laterally and the soil around it, to draw the shoulders or offsets of the post firmly together, and thus hold the wires securely in their several places.

Coal and Window-glass known to Romans.—It is now well ascertained that the Romans in Britain, at least, made use of mineral coal. The cinders have been found in some cases in the fire-places of Roman villas ; and in several places in Northumberland, where the coal-beds came to or near the surface, the Roman workings have been traced to a very considerable extent. On the northern coast of Wales, where the coal-beds also cropped out, there can be little doubt from appearances that the Romans worked coal mines extensively. In Britain, and in the colder climates generally, the Romans appear always to have warmed their houses with hot air, and never with fire-places in the rooms, as at present. The floors of the rooms were formed of strong cement, resting on numerous short pillars, and from the narrow, subterranean apartment thus formed, termed the hypocaust, numerous flue-tiles were run up

the intervening surfaces of the walls of the house.

Fire-places were made at the side of the hypocaust externally, for the purpose of heating the air within, which rose up the pipes of the flue-tiles. Window-glass was, no doubt, used in the Roman villas, for in excavating the remains of these buildings, numerous pieces of glass are found on the floor at the foot of the wall where there had evidently been windows above. This glass resembles in quality and thickness our common window-glass.

A Natural Whispering Gallery.—

The greatest "whispering gallery" in the world is that of the Grand Canyon, Colorado River. For years this chasm has been a matter of surprise to prospectors and miners on account of its wonderful transmissions of sound, and it has only been since the advent of the railroad that any definite idea has been entertained of the great distance it travels within its walls. A train of cars crossing the bridge at the Needles can be plainly heard on a quiet day at Cottonwood Island, a distance of eighty-four miles. The fife and drum at Fort Mojave is distinctly heard at Bull's Head, a distance of eighty-four miles. The report of the sunrise gun at Fort Mojave can be heard at Eldorado Canyon, a distance of ninety-six miles.

Our Growing Wants.—It would seem, at a glance, that the inventive skill of our people was in advance of the social needs; but a writer in the *Scientific American* takes another view, and points out some wants that have not been met:

"There is hardly any field of invention which has been so little cultivated as the American house. For instance, what a disgrace it is to the mechanic arts in this country that every stick of timber in every house is not fire-proofed by a cheap, practical process, the plant for which should become the second thing, after a sawmill, to be erected in every new settlement. For want of a cheap, practical process for fire-proofing wood, one hundred million dollars' worth of property is destroyed every year in the United States. The carpenters have hitherto opposed such processes because the mineralized wood is less easily finished with the common tools. But a large portion of all the wood in a house is used in the rough, and this objection need not apply to it. For the finished wood let the fire-proofing and steam-seasoning be done together, after all the finishing has been completed except the final fitting. For the final smoothing, if edge-tools will not work, let us have new tools, carrying pumicestone or other abrading and polishing material.

"We are now entering on a new and more complex system of domestic architecture—the family club-house or social palace—which will require a host of new inventions. It is not looking very far ahead to see whole towns built in this way. These buildings must have their internal railways and elevators of all

sizes. They must be tunneled for hot and cold air flues, ventilating flues, with artificial draught, steam, gas, water, and sewerage-pipes, and speaking-tubes. They must be equipped with an electric generator and electric wires for light, power, and telephony, with artificial refrigerating as well as heating apparatus, with gas generators, and the most perfect cooking and washing machinery. All of this machinery must be made on a large scale, with a capacity of subdivision.

"There is, at the present moment, one desideratum in the modern house for which no sufficient provision exists, and which would insure a number of fortunes to the parties who would introduce the wished-for article in a cheap and practical form. This is a small elevator, run by the water in our city pipes, of no greater power than *fifty pounds raised ten or twelve feet*, applied to running the common dumb-waiter. This little simple invention would be a very important labor-saving machine in the average house with a basement kitchen. It would save its own cost in broken crockery and servants' wages, not to speak of the temper of employers and employed."

One of the Oldest of Human

SKULLS.—According to a Turin newspaper of March 23, a skull has been recently found at Podhaba, near Prague. A laborer, while excavating, found this skull near a mammoth's tusk. The skull presents many interesting characteristics, and may help toward determining the epoch of its existence, going back, as it evidently does, to the time of the mammoth. The forehead is very flat, and the optic ridges project much. This skull is a human memorial, belonging to the most distant time in the life of man, and furnishes a fresh example of the early development of the brain, and seems to add to the data in support of the theory that man has gradually advanced to his present stage of growth. Perhaps, after a while, we shall be able to conclude with a great savant that it is better to believe that man is a perfected ape than a fallen Adam.

H. N.

The Metric System not better THAN THE OLD.—Among those who have raised their voice against the introduction of the metric system into the United States is Mr. Coleman Sellers, who has studied its workings in Europe, and whose opinion is worthy of attention. He says:

"I notice among those countries where this system is said to be in compulsory use—Norway, Sweden, and Denmark. Now, I have just visited these three kingdoms, and while there I made it my business, as I have done in other countries, to make a full inquiry into the practical operation of the French metric system. I find that the Governments of the three countries above mentioned have adopted the system, and have appointed a date a few years in the future when its use will be obligatory, but as yet it is not in general use, except among the employes of the Government or in the Government depots. The

people at large know little or nothing about the subject, and small progress has been made toward preparing them for the change. In the railroad stations may be seen charts hanging on the walls that give the system in a graphical way, and the weight of the luggage upon which an extra charge is made is computed in kilos, not in pounds; while everything weighed in the shops or markets is reckoned in pounds or measured by a 'yardstick,' which is 25 of our inches in length; this I give from actual measurement—although the shop-keepers say that the Swedish measure for cloth is two-thirds of the English yard. In Denmark so little is known about the enforced adoption of the French system that an important shop-keeper told me that it was never to be adopted. . . .

"To the merchant who buys and sells, it makes no matter if the yard is one of 25, or 36 or 39.39 inches long, nor if the pound weighs more or less than a pint of water; but to the engineer the matter is of more vital importance. I have gone this summer through the workshops of almost all the great countries on this side of the water and in those of Germany. I have seen the practical use of the system that I have for so long a time condemned. I frequently asked engineers if they like the system and if they use it, and I will give the answer of one in Berlin: 'We use it because we have to, and it is better to have some uniform system than the many measurements that formerly prevailed in the German States. The unit of the machine-shop is the millimetre in everything except bolts, nuts, and screws. All bolts and nuts are made to the English inch, because we use the Whitworth system. We do not like the metric system because it has too small a unit and the metre is too large and involves the use of decimals.' . . .

"The standard of the French system is a certain bar, kept for comparison; so is the English yard, from which we get our feet and inches. The high-flown notion that the metre is a measurable portion of the quadrant of the earth's circumference has been given up long ago, and the measurements of England and America are on a better basis of accuracy to-day than that of any other country. The French system theoretically predicates its weights on the weight of a cubic decimetre of distilled water at a temperature of 39.1 deg. Fahr., the weight of which is called the kilogramme, and is two and two-tenths of our pounds; but really the standard unit of weight is the platinum kilogramme-weight deposited in Paris. In Germany you never hear of the kilo, but they sell by the pound, their pound being the half of one kilo: this they cut up as they please into smaller weights, and you can buy half a pound of grapes or butter just as well as you can in America. It is claimed that given the metre, all weights, etc., can be deduced from it; in theory this is very well. The most skilled workmen, however, are not yet able to make two litres of water weigh alike to the utmost point of accuracy, and the cubical litre is not

used, but is converted into a circular or cylindrical vessel, with all the trouble of the problem of squaring the circle.

"If a bar of ordinary forged iron be planed up to measure one inch square, and the bar be one English yard long, it will weigh ten pounds, and the tenth of such a bar will weigh one pound more accurately than will the ordinary litre of water weigh one kilo. The English engineer in these days of iron knows when he uses shapes of iron rolled of uniform section that the tenth of their weight in pounds per yard gives him the area of the section, and this one admirable incident will long fix the desirability of the present unit of England and America.

"When we consider the interest involved, it will be seen that the population now making practical use of the English standard is greatly in excess of that using, by force, the French system. Millions of those numbered among the people who use the French system have no occasion to use any or know any system whatever save in the crudest form.

"Swedish iron and steel are rolled to English inches in size; so, also, their boards are cut to the English inch, because their market is largely in those countries that use the inch. In the Russian machine-shops the English inch is used exclusively, and, as I have said, throughout all Germany it holds for all screw sizes. In France and in Belgium the yardstick is the metre hung from a rod like the cross bracket of a drop gas-light, placed about eighteen inches above the counter. In Germany the half metre, or twenty inches, about, is the measure used, and that held in the hand of a salesman by a handle at one end of the measuring-stick. The Swedish machinist carries in his pocket a rule on which he has the English inch, and by its side the French measures; on the other side he has the two Swedish feet, one long in use, and one ordered to be used but never put into practice. The Swedish roads are laid out now in kilometres, and marked by iron plates, giving at each ten kilometres the distance from some place, while half-way between is a sign 5 kl. This division of the roadway seems to them to be fine enough, as the old Swedish mile was six and two-thirds of our mile, and five kilometres is a less distance.

"Carefully as I have considered this subject of weights and measures during the time I have been from home, I am the more confirmed in my opposition to the enforced adoption of the metric system of France in my own country, and firmly believe that those countries that have adopted it are at a disadvantage as compared to even the most imperfect of our systems. America has entered on the line of simplification of its metrology, and that is the direction that should be followed, not by any means giving up what is good, but by making what has been found to be practical, better and simpler."

Care of House-Plants.—Plants for the house should be of the kinds to bear tropical heat, otherwise the dried air produced

by furnace or stove will rapidly destroy them. They should always be placed lower than the gas-jets, for the sulphur from gas as made in cities is destructive to growth. Boxes and brackets for the windows, and all designs filled with ornamental plants, should be placed low. The atmosphere in any apartment is better nearer to the floor; besides, to get the full beauty of plants, they must be looked into. The objection to suspended designs is that the roots and earth are more conspicuous than the leaves and bloom. All plants for the house must have light, and, if possible, sunshine. A temperature of from 55 to 70 degrees is better than warmer for varieties cultivated indoors. If the vases in a room where plants are grown are filled with water it does much toward making the growth thrifty. Judicious watering is positively necessary. It is a mistake to warm the water used. It should be drawn and left to stand until it is of the temperature of the room. There are plants that will be seriously damaged by too warm water. Too much water is also harmful. The earth about a plant indicates when it is thirsty; then it should be thoroughly watered. None of the ornamental pottery vases for helping plants have a hole for drainage, and it is not required when the plant is cared for intelligently; the earth needs only sufficient water to supply whatever is growing in it. A little judgment exercised, and it becomes an easy matter to know how much water the earth in the vase will absorb. An excellent plan is to try the soil with a slender stick, as cooks try bread or cake. To keep plants bright and healthy, the foliage should occasionally be gently sponged on both sides. This is particularly necessary for large-leaved plants. All withered leaves and twigs should be picked off, and blossoms should not be left on too long, or others will not form in perfection. Newspapers pinned about plants will protect them when sweeping is done.

Roaches, Red Ants, etc., Expelled.—L. E. R. writes the *Tribune*: "Plaster of Paris will drive away roaches without the use of poison of any kind. Last year we were troubled with the little red ant, and with roaches and other vermin in our pantry and cupboards and milk-room. We sprinkled plaster of Paris on our shelves, in the cracks, around wood-piles, around and over flower-pots, and in the numberless places where vermin do congregate, with good results. I am happy to state we have not been troubled with vermin since. Five cents' worth yearly is enough for almost any family. Even flies seem to avoid it."

The Clock in Trinity's Tower.—The clock in Trinity Church tower, New York City, is the heaviest in America. The frame stands nine feet long, five feet high, and three feet wide. The main wheels are thirty inches in diameter. There are three wheels in the time train, and three each in the strike and the chime. The winding-wheels are formed of solid castings thirty

inches in diameter and two inches thick, and are driven by a "pinion and arbor." On this arbor is placed a jack, or another wheel, pinion, and crank, and it takes 850 turns of this crank to wind each weight up. It requires 700 feet of three-inch rope for the three cords, and over an hour for two men to wind it. The pendulum is eighteen feet long, and oscillates twenty-five times per minute. The dials are eight feet in diameter, although they look little more than half that large from Broadway. The three weights are about eight hundred, twelve hundred, and fifteen hundred pounds respectively. A large box is placed at the bottom of the well that holds about a bale of cotton-waste, so that if a cord should break the cotton would check the concussion.

Reducing Bones for Compost.—The *Massachusetts Ploughman* has this to say about preparing bones. It should be added that the loss of nitrogen in dry bones is not great, as the per cent. of this element is comparatively small. Burning is perhaps the most practical method for the farmer:

"The simplest and cheapest way to reduce bones to make them available for plant food, is to burn them; but to do this is a great loss of valuable plant food, as it consumes all of the nitrogen, yet the ashes are very rich in phosphate, being about 80 per cent. It also contains 15 per cent. of carbonate of lime, 2 or 3 per cent. of phosphate of magnesia, soda, and potash. All of these substances are indispensable to vegetable growth. The process of burning bones is so simple that some contend that when only small quantities are to be reduced it is the best way, even though the nitrogen be lost. It would certainly be better to burn them than to sell them for a half a cent, or even a cent a pound. It is very poor policy for the farmer to sell the bones from the farm; in fact, when he can buy them at less than a cent a pound he had better buy what he can, though he have to resort to burning them to make them available for plant food; but as this is a wasteful process, the ashes should be resorted to when they can be readily obtained. In some portions of the State small establishments have been erected to steam and grind bones. By extracting the grease and gelatine the bones are easily ground; this leaves in the bone about one-half of the nitrogen; the other half may be saved by composting the liquid with dry muck. Some of the owners of these mills are willing to steam and grind bones for a fair consideration. When such mills can be found within a reasonable distance, this is the best way to get a small, or even a large lot of bones worked up into plant food.

"The time will probably come when these small mills will be found all over the country, the same as mills to grind corn; then the farmer will be able to get waste bones changed into a very valuable manure. Ground steamed bone is not a very quick-acting fertilizer unless it be treated with acid, but it is very lasting, and at the same time will produce good crops the first year."



FOWLER & WELLS CO., Publishers.
H. S. DRAYTON, A.M., M.D., Editor.

NEW YORK,
DECEMBER, 1884.

THE SIXTH SENSE.

WHAT is it? We read and hear much about it, but are unable to gather sufficient data to warrant us in setting forth a definite proposition concerning its nature and functions. Certain people are looking to us for the formula that shall give it a character and place among the mental faculties, and certain territorial belongings within the cerebral tissues. We should be glad to "differentiate" the new discovery in the realm of mental faculty, if there be a new discovery, but the matter is yet involved in uncertainty—three or four varieties of power being imputed to this "sixth sense."

Some writers refer to it as something related to tactile sensitivity, a property purely intellectual, that may be educated, so that a person will know just what muscular force to exert in certain delicate operations—for instance, in high surgery, or in the more refined processes of mechanical art. It is seen, they say, in the marvellous tricks of the conjurer, in the performance of the accomplished gymnast, and also in the experiments of "mind-readers." Such manifestations

appear to us related to Weight, and in their most remarkable features are not incompatible with a highly developed state of that organ.

Others speak of a "sixth sense" as a faculty that is related to prescience, an intuitive sense that leads one to escape injury to his person or property. It is illustrated thus: A man is standing on the brink of a cliff overlooking a river; the prospect is charming, and he would like to remain and contemplate it for a long time, but some unaccountable impulse leads him to hasten away from the steep. He has scarcely walked ten paces when the rocky platform on which he had just been standing falls with a mighty crash into the depths below. Had he remained, it would probably have been certain death to him. Again, the engineer of a locomotive drawing a passenger train at a great speed at night over a lonely stretch of country, is led by a strange apprehension of danger to stop the train, and, taking a lantern, he walks along the track and finds but a short distance in advance of his locomotive a heap of sleepers that had been placed there by some demon in human form. The stoppage of the train has saved his own and many other lives. Such a case was reported by the newspapers a few months ago.

We might refer this sense to a mysterious exercise of the sentiment of Caution, in combination with some other faculty of a higher psychic nature. Apprehension of danger is the impression that leads him who is attentive to take precautionary or preventive measures, but the source of the impression is inexplicable by any principles of logic that are available to us. To say that we are subject to providential warnings may

suggest the comforting thought of Divine interference in human affairs for our safety, when harm from an unknown source is impending; but faith rather than knowledge, sentiment rather than intellect, will accept the postulate.

Still another phase of this alleged sixth sense, and equally inscrutable, is the alleged appearance of the form or spirit of dying persons to distant friends. Of late, reports of such appearances have been on the increase, and testimony of the highest character is furnished in their support. One that seems most worthy of credit is related of a little boy who was visiting some friends at a considerable distance from the city where his parents resided. He awoke suddenly in the night and saw his mother, whom he dearly loved, by his bedside. He sprang up and embraced her eagerly, and she carried him out of the room into the hall, where she set him down upon the floor, and there, while caressing him with her "warm soft hands," told him to be a good boy, as she was going away and he would never see her again. Then kissing him with deep affection, she broke away from his clasp and disappeared. He aroused the house with his cries for his mamma, and was with much difficulty quieted so that he would return to his bed. The next day a messenger came with the announcement that the child's mother had died in the night, and on comparing the time it was discovered that her death had occurred at the very hour when the little boy had seen and talked with his mother. This is a strong case, as it can scarcely be made out that a mere child six years old is the victim of illusions or hallucinations, or of revived impressions. His whole demeanor was that of simple belief in the truth of what

he saw, and the circumstances of the interview with his mother were not repetitions of former experiences, but entirely new. He did not know the meaning of death, and had never been taught anything of ghosts, so that when his friends smiled at his earnestness and said that he had been dreaming, he was annoyed by their incredulity, and insisted with all his little energy that "mamma had been here." Whether or not it is an extension of this form of mental sensitivity that imparts to "mediums" the power they claim of penetrating beyond the veil that screens the other world from ordinary vision, we are not prepared to say; but candor would force the allowance that in the multitude of phenomena called clairvoyant, spiritualistic, tranciform, etc., there is a basis of fact that compels our respect, and our belief in some property possessed by man, confined in its development to a few rare souls by its very nature, that shows the existence of a subtile relation between the material and the psychical, the natural and the supernatural.

The multiplication of new phenomena, having characteristics allied to the intellectual, the psychical, the emotional, with mysterious and even wonderful phases that perplex the best observers, inclines us to the opinion that there are two or more "senses" of whose activity certain persons may be signally conscious, but that we have not attained the degree of development necessary to their orderly exercise, and therefore can not comprehend their nature and function.

HELPING OTHERS.

THE secret of being helpful to others lies in self-abnegation. Many are willing, very willing to give assistance

that is much needed, but they insist on having their own way in the manner of the giving, and also control for the most part the manner of the use of what is given. To worthy persons needing assistance, help so bestowed is very unsatisfactory, and unless their need is imperious, it is declined. People of character that is deserving of common respect prefer to manage their own affairs, and that as a matter of simple right. Because they may be unfortunate and poor does not alter their status as men and women having an equality of moral right with other men and women. But true benevolence, a warm sympathy for the sorrows and wants of our fellows, does not presume to dictate to an unfortunate what he shall do with five dollars or a hundred dollars that it puts into his hands, but bids him take it in welcome and do the best he can for himself. True benevolence does not assume that because one is in want that he is a prodigal and must be tutored lest he should carelessly dissipate what is given. Those who have come to grief because of extravagance and vice, true benevolence would advise kindly, and if their prodigality be inveterate a considerate charity would have them placed in such relations of counsel and restraint that they will be efficiently relieved and at the same time be made to profit by the grievous lesson of experience.

The larger proportion of human poverty and misery is due to improvidence and vicious habits—but he is a cold, selfish man who can not pity the unfortunate victims of self-indulgence and find points of allowance in their training and associations for the errors into which they have fallen. Temptations and stumbling-blocks abound, especially in great cities,

and he that would walk uprightly and pure must set his face as a flint; he must have the physical instincts and the selfish faculties well under control, because at almost every turn there are influences and excitements that are ready to arouse the lower feelings. He that is lacking in self-restraint because his environment has developed his propensities into such activity that it is hard for him to keep them in subjection, should be an object of compassion, and the best help that can be afforded in his case is a gentle, forbearing influence that will draw him aside from the path of temptation and instruct him concerning himself.

Many poor fellows know their weakness, but do not understand its source in their organization and how to set about its correction. They may have earnest moral yearnings, and sorrow in dust and ashes when they sin, but, having no clue to their trouble, go staggering along in a state of mind that borders on insanity. How noble and priceless the help that reveals to these the nature of their situation and points the way to self-redemption! Here is a sphere in which "scientific benevolence" may be exercised.

The science of mind, practical and philanthropical, comes to the weak and wayward and sad and proffers a cane to help themselves along the rugged way of life. The cure of one's errors must be wrought for the most part by one's self, otherwise the remedy will have but a transient efficacy. But it is a most encouraging fact in the history of phrenological benevolence that he who earnestly sets about the correction of his errors and vices, using the aids of phrenology, ultimately succeeds, and becomes a true man and a helper of others.

BUSINESS PERVERSION.

THE enterprise of the daily newspaper in collecting news from all parts of the world, spreads before the reading public a great amount of criminal data, which would prompt the thought that crime is increasing among us. Some of our statisticians, however, claim that public morality is actually higher in tone to-day than it was fifty years ago; that there are absolutely fewer cases of trespass upon civil and moral law, in proportion to the population, than there were twenty, thirty, or forty years ago.

The growth of the newspaper has been wonderful, and more than commensurate with the facilities that human invention has provided for the obtaining of news, not only from all parts of our own country, but from the Old World. We do not estimate at its true value, the result secured to us by that one agency, the telegraph. It is but a score of years ago when information relating to important events in Europe came to our knowledge ten days or more after their occurrence. Now an event out of the ordinary line can not occur to-day in Europe or Asia, or even in Africa, without being reported in New York in time for its publication in to-morrow's newspaper of every city in America. This fact being understood, we can not wonder at the variety and extent of the items that make up the columns of an important daily.

Whether or not crime is more common now than in past years, it is certain that there exists an appetite for it, to which the newspaper endeavors to make response. It seems to us that the full details of some horrible murder, or of some disgraceful scandal, could not be countenanced by a refined manager or

editor, unless he felt it was to his financial advantage. We take up any leading journal and the first glance at the first page, discovers in striking capitals the caption of some deed of blood or vice. We may look at the adjoining columns, and the eye takes in head-lines introducing other accounts of other criminal occurrences. We have counted on the first page of a prominent daily a half dozen accounts more or less elaborate, and as many brief items of criminal offences. When we read that some coarse, brutal person has committed a breach of law, we are not surprised, because from his birth up, his environment was probably such as to develop and strengthen the low propensities of his nature, while the higher faculties were not permitted to exercise their compensation. He naturally gravitated into crime, an unfortunate state, for which we have more compassion than censure. But a large proportion of the crimes against property, those of embezzlement, fraud, deceit, that now and then startle the community into thinking that it were best not to put any trust in man, are committed by persons who have had exceptional advantages in a business way. The well-educated book-keeper or cashier, with his large salary certainly has little excuse for his offence; yet so many have fallen that each new case of defalcation that comes to light excites little more than ironical pleasantry.

The philosophy of these cases is not difficult. Men get into careless habits almost imperceptibly when they are allowed unlimited control in any department of business. A man that feels himself to be under the eye of others who have the right to supervise his work, will be kept in the channel of propriety

both by the knowledge that he is under supervision, and that his work is important. Most of the cases of embezzlement, whereby men of high social and commercial standing have rendered themselves subject to great disgrace, are due to having too much authority, too much control of the wealth of others. A man may have but moderate Acquisitiveness, yet when surrounded with wealth in available forms, and permitted to exercise his judgment freely as to its application, and being subject to demands of a social nature that increase in proportion to his apparent income—often a false judgment being formed of that—gets into the way of thinking it necessary to use some of the money for his own purposes. His sense of honor may be delicate, but it is in part appeased by his intention to make his accounts good; he will but borrow now, and replace in the future, from his salary or profits, and all will be well. The first step in crime may be a little one, being susceptible of explanation that will content the public, but it prepares the way for another and longer step, and the success of that encourages further and bolder steps of positive dishonesty. The average man of business desires to be honest, and if the environment be lacking in incentives to wrong doing, he is; but the balance between his moral sense and selfish propensities is so nearly equal, that a strong influence brought to bear upon the latter excites them so much that he may be expected to yield his integrity to them and be dishonored. When the selfish nature has obtained a victory over the generous and dutiful sentiments, it assumes an authority that is fearfully exacting, and repentance and reform come only through strenuous effort and much suffering.

It is unnecessary to say that the peculiar characteristic of the age in the way of a rapid accumulation of large fortunes has an injurious effect upon the average young man in business, for the fact is too apparent. The greed for gain has much to do with the many "exchanges" and "boards" organized for the purpose of enabling men to "operate" conveniently; in other words, to try their chances, in a way that is a little short of pure gambling. Men now purchase stock, or produce, or grain, or dry-goods, or cotton, or iron, in various lots "on margin," the purchaser in the great majority of cases never intending to take the goods or stock, but merely to secure the control of a certain amount, for a time; and should the price advance, to sell and draw from the broker the calculated profit. The multiplication of Exchanges in our great centres of trade is an index of the growing spirit of speculation; the straight and sure methods of old-time have been largely abandoned; and instead of the cool, deliberate negotiation of the warehouse, where seller and buyer met in private, we have the noisy, excited clamor of the exchange. The apostolic precept, that "The love of money is a root of all evil," has its thousand evidences to-day to one in the time of the apostle.

Excited, over-wrought Acquisitiveness disturbs the balance of the whole organism; it renders men incapable of enjoying the peace and happiness of home, the refinement and elevation of study and culture; it renders the individual restless, and forgetful of duty, and forgetful of self; makes him the prey to an all-devouring worldliness, that finally ends in hardening of the heart, and debasement of all that is noble and true in

manhood. Some there are who tread the confused and disturbing arena of 'Change; and at the same time, endeavor to keep up their relations to home and society, though they find it an exceedingly difficult task to be at once a servant of Mammon, and to walk with even poise in the circles of intelligence and high moral sentiment. We have known a few men who have endeavored to do this; and we have witnessed the hard struggle that was theirs to preserve the equilibrium of soul; and we have heard more than one say that the eager, excited life of a money-maker unfitted him for the solace of retirement and mental culture. A man who is not eager for wealth is the only man who can combine the relations of business and sentiment; he can make his business contribute to the upward growth of his whole organism. A well-ordered business possesses important relations that stimulate a healthful activity of one's intellect, and also a normal activity of his moral nature; so that in passing from his count-

ing-room to his home, his study, and the drawing-room, where friendly greetings meet him, is but a pleasant transition.

YOUNG WOMEN AS COLLEGE STUDENTS.—This paragraph meets the eye in an exchange: "In a recent circular published by Cornell University, it is said that young women bear the strain of mental work quite as well as young men, and there is no more sickness among them; moreover, a larger percentage of them complete the course and graduate, and the average of scholarship among them is higher than among young men. This fact does not necessarily imply mental superiority,—it results, doubtless, from the greater regularity with which they apply themselves to their tasks."

From our observation of mental action we have derived the impression that regularity is a very important element in effort, and conduces as much as any other to success. Comparing one person with another, we should regard regularity as a point of superiority, and we doubt not in the world of practical affairs it is so considered by the majority, and certainly as of more value than spasmodic brilliancy.

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a small hand, or in pencil, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

WE CAN NOT UNDERTAKE TO RETURN UNAVAILABLE CONTRIBUTIONS unless the necessary postage is provided by the writers. IN ALL CASES, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage, or what is better, a prepaid envelope, with their full address. Personal matters will be considered by the Editor if this is done.

UNWISE TALK.—W. E. B.—You are right in your opinion, that it is not wise to tell those who are weak, sickly, and nervous that "they look badly," or "are failing." A great deal of harm is done in this careless manner; impressions are awakened which lead to serious results, even death, and that by persons who have no intention of doing harm. We shall have something to say on this

topic, in accordance with your suggestion, in some other place, and at some other time when it is convenient.

UNSUITABLE DIET.—C. F. K.—We are of opinion that many people are sick, and seriously sick, simply because they have been using a diet which is not at all suitable. Many who have gotten into chronic conditions, being advised to go to some good hygienic institution and try the treatment, find after doing so that improvement comes, and that, too, without taking a dose of medicine. As regards cancer and gastric ulcer, we are not confident enough in the effects of diet to say that a change of food will produce cure; but had we a case under our own counsel we should insist, as accompanying special treatment, that the person should eat certain food,—that which is simple, nutritious, and unexciting,—in very moderate quantity. We know of cases that have been greatly benefited by a simple change of diet. If the disease be far advanced the whole system, having become charged with its morbid effects and weakened greatly, no treatment can be reasonably expected to be of avail. In the course of a cure the substance of an ulcer of the stomach may be thrown off if it be of a hard, squamous character; if it be soft it will be absorbed, for the most part, and so disappear.

SINGULAR SURGICAL CASE.—T. H.—The case of injury to the skull, reported by you, is certainly a singular one; but there have been others equally remarkable, and which have been considered in the columns of this magazine. The "crowbar case," for instance, was similar. A bar of iron, used by a miner in blasting, was driven by premature explosion upward through his head, passing out at the summit of the cranium. The case you mention is that of the iron breech-pin of a gun being blown through the head; and we infer that the wound made was similar to that in the "crowbar case"; it was central, and did not involve much of the brain substance proper, being made chiefly in the space between the hemispheres; and the person possessing remarkable powers of endurance, and great vitality, recovers. We should be glad, however, to know the exact condition of his mind. All such cases contribute much light to Phrenology. Peculiarities of mental action generally follow brain injury, even where the person is supposed to recover entirely. In the most of such cases we have inquired into, we have found that the surgeon in attendance has not taken note of the patient's mental condition, and can give us no definite information.

MISS ALCOTT.—F. W. D.—Miss Alcott is supposed to be in the neighborhood of fifty years of age, and unmarried. Her well-known book, "Little Women," has a bearing upon her early life, many of the incidents being autobiographical in part. She resides, when at home, at Concord, Mass., we think. A few years ago, in the April

Number of the PHRENOLOGICAL JOURNAL for 1881, we published a sketch and portrait of her.

CORN CURE.—A. B.—The remedy for corns, to which you allude, has collodion in it, and acid,—the latter being the destructive agent, eating out the hard, nodular centre. You can obtain it at almost any good druggist's. This formula is probably of a similar character, and is worthy of confidence: Thirty grains of salicylic acid, five grains of canabis indica, and collodion half an ounce.

PAIN UNDER THE SHOULDER.—New Sub.—A pain under the shoulder-blade, usually the left, has a relation to the liver or indigestion; and by regulating the diet and habits, especially the former, it may be relieved. We have known very severe cases to arise simply from a disturbed stomach, the nerves of the dorsal plexus being in intimate sympathy with the stomachic state. You might omit milk with advantage; perhaps it renders your liver heavy, torpid; substitute good molasses or sugar in moderate quantity; perhaps it would be better for a man, in such a condition, to eat dry wheatmeal bread, or oatmeal bread, for a time. Exercise, in moderate degree, is helpful toward promoting digestion. The exercise of rowing is invigorating; if one handle the oars properly he is likely to take on a good physical development.

FRUIT-EATING.—Objector.—We certainly believe in the free use of fruit, and regard it as healthful to dyspeptics, but it is essential that the sick one should know what he is about. It certainly would be imprudent for one who had been accustomed to a diet that ignored fruits, to begin suddenly eating them with freedom. The stomach and general system adapts itself, as far as may be, to the diet, so that changes of an abrupt nature are harmful. Moderation in the transition from what has brought on illness to a proper kind of subsistence, is quite sure to be beneficial. The testimony of people who have subsisted on fruits and vegetables as a regular thing from childhood, completely refutes the argument of fruit opponents. People who complain of being injured by eating strawberries, blackberries, grapes, pears, peaches, and so on, owe their illness not to the fruit, but to irregularity in other respects. Many people will cram down an excessive quantity of beef or mutton, bread, butter, potatoes, coffee, etc., and then, as a dessert or "top off," swallow a large dish of fruit, and the disturbances they afterward experience are attributed to the dessert. A letter falls now under our notice from one who has changed his living recently; he says: "I find myself improved by a strictly vegetable diet, and would recommend it emphatically to others. I have discarded even milk, butter, fish, and honey, and consider myself the better for it. I am so strongly impressed by the improvement in my physical condition, that I believe a great part of the misery experienced by people would be relieved if people became accustomed to a fruit diet. One

result would certainly follow,—which is of great importance,—people would plant trees everywhere, and as a consequence meteoric showers, hurricanes, inundations, and other disasters, now common, would largely disappear. Fevers, cholera, and other epidemics would be unknown, for the reason that the fruit diet would relieve the system from excess of bile, and tendencies to feverish conditions. In the beginning of a change toward a fruit diet, I would recommend the person to eat potatoes, and such bland articles of food as do not act sharply upon the bowels, and fruit be gradually introduced. The food spoken of in Genesis, chapter first, verses 29–30, a meal which Christ partook of, for the last time, had no animal elements in it."



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

AN EXPRESSION OF GRATITUDE.—A correspondent, Mrs. M. B. B., of that undaunted advocate of high reform in domestic and social life, the *Alpha*, wrote a letter that was published not long ago in the *Alpha*, in which occurred the following paragraph, evidently a spontaneous expression of sincere feeling :

"I have ever, since a young girl, when in 1844 my attention was called to the publications of Messrs. Fowlers, and their predecessors Gall, Spurzheim, and the Combes, etc., been an ardent admirer of any man or woman who possessed the moral courage to take hold of the evils of life ; and while tearing down their flimsy framework, would go to work to build up a superior structure on a pure and virtuous foundation ; one that would give to the needy a hold on life which would bring to them untold joy and peace, by simply putting them in true relationship to the laws of nature. How beautiful are God's laws, and we have only to obey them to bring heaven to our hearts. . . . May God bless Messrs. Fowler & Wells, and their collaborators, as He blesses all who read their publications. As we look about we find many who are taking up branches or shoots of the grand ideas they are putting forth, cultivating them and sending them out in one form and another to feed the needy, as they are capable of receiving and using strong remedies ; and you, it seems, have taken the 'tap root' of the great tree of knowledge of good and evil, which these reformers have been striving to enable people to see."

KEEP A SCRAP-BOOK.—While looking over my scrap-book, some friend points to the pictures of men who have murdered their best friends, saying, "What do you have *their* pictures for?" "Well," I answer, "when a man collects a menagerie he has all kinds of animals, and so it would not advance the knowledge of human nature to omit

them. I have all kinds. Here is Napoleon, Attila, Alexander, etc., lions who have made the forests tremble. Then I have poets, the song-birds of nature soaring between earth and heaven, nightingales whose notes held spell-bound all the beasts of the forest. Here is Byron—not a nightingale, but a Pegasus, a winged son of genius, soaring above the earth with tempest wing, flashing eye, and passion-distended nostril ; the lightning crashes beneath his footsteps, the earth and heaving ocean spread beneath his eye, and on 'Fame's dread mountain' he stands at last, surrounded by 'snows sublime.'

"Here are learned judges ; owls whose gravity is often mistaken for wisdom, whose word often means law, when it is a travesty of justice. 'Tis a great advantage in the study of human nature to have spread before the trained physiognomical eye the faces of the 'foster-babes of Fame,' who have won their laurels 'by blood or ink,' whether it is the casuist, the conqueror, or the traitor." We say, by all means keep a scrap-book. There are few who can afford anything like an extensive collection of busts and casts in stone or plaster ; but it is easy to keep a book containing many desirable portraits. It is difficult to get portraits of men of ancient times, though if the collector is enthusiastic he can draw the more distinguished of them, using as models the small prints in cyclopedias, etc., but these of course should not be inserted unless they are faultless. These men, remember, can't rise from their tombs to take vengeance for the hideous caricatures already afloat. They would probably strew the earth with hostile bones if they could. Many pieces may be clipped from illustrated papers, etc., which often contain short biographies attached. The best measurement for such a book is 13 x 20 in., and can be made by any bookbinder. The pictures should be classified, of course : poets and politicians, pickpockets and "men of glory in the wars," all imprisoned in their proper fence-corners. The student of human nature will find that such a book repays many times the trouble of keeping it.

H. AUSTIN.

"WHAT HAS BEEN, WILL BÈ."

I'M standing high 'tween earth and sky,
Held by some strange propensity ;
Around my feet the surges beat
From out the vague immensity.

The earth recedes to what is not ;
I lift the folds of destiny ;
I vivify the long forgot,
And look on all that is to be.

The past, the present, future glide
In ceaseless undulations past ;
The former ages like a tide
Roll on the future's stretching vast.

For earth is but a ship that plows
The ocean of eternity,

In which the past forever flows,
With all that is, and is to be.

There's not a deed that e'er was done
But flows like streamlets to the sea,
And like the vapor through the sun
Comes back to fall in deeds to be.

No pang that ever gave unrest,
No thought that ever thrilled desire,
But in the future tears a breast,
Or lights again a soul of fire.

For earth is but a ship that plows
The ocean of eternity,
In which the past forever flows
With all that is, and is to be.

KARL KARLINGTON.

PERSONAL.

"JEFFERSON DAVIS is now the last of his line," according to the *Atlanta Constitution*. "He has been married twice, and has no male descendant. Not long since he lost his only son, and recently the death of the son of Gen. Joseph R. Davis, of Biloxi, Miss., took away the last hope of perpetuating by male descendants the name of Jefferson Davis."

POMPEY GRAHAM died in October, at Montgomery, N. Y., aged, it is claimed, 119 years. He had a distinct recollection of the incidents and personages of his youth, but could not remember dates. He was the eldest of seventeen children, and enjoyed good health to the time of his death. He was married three times.

JOHN ERICSSON, the inventor of the monitors which did such useful service in our late war, and the author of the hot-air engine which bears his name, and other inventions, is past his eighty-first birthday. Captain Ericsson does not appear to be much past sixty years of age, and is hale and hearty. He is very methodical in all his ways, abstemious in his habits, and best pleased when at work, which he begins immediately after an early breakfast.

MISS LYDIA BECKER, of the Manchester (Eng.) School Board, who attended the recent scientific meetings in Montreal and Philadelphia, is a somewhat notable woman. She has regularly voted at the Manchester municipal elections since 1869. Since 1870 she has been a member of the School Board of that city. She is an Honorable Secretary of the National Woman's Suffrage Committee, and editor of an English woman's suffrage journal.

THERE lives in Forsythe, Ga., an old gentleman who is now in his seventy-ninth year. He was licensed to preach in 1840, and has been preaching ever since. He never served on a jury, never was sued, never saw a horse race or a theatre, never

saw a game of cards, a dance, not even at a corn-shucking, nor was he ever drunk. He has twelve children, and lives a happy, peaceful life. How strange!

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

WHEN we think of good, the angels are silent;
when we do it, they rejoice.

ONLY those who have thoughts like lightning deserve to have a voice like thunder to utter them.

HAPPINESS is not outside, but inside. A good heart and a clear conscience bring happiness, which no riches and no circumstances alone ever do.

WHAT a man knows should find its expression in what he does. The value of superior knowledge is chiefly in that it leads to a performing manhood.—*Bovee*.

"Life is before you! from the fated road
You can not turn: then take ye up the load.
Not yours to leave the unknown way,
You must go o'er it, meet ye what ye may.
Gird up your souls within you to the deed,—
Angels and fellow-spirits bid you speed!"
—*Butler*.

IN these degenerate times a great many men may be found in bar-rooms, gesticulating wildly and proclaiming their intention of supporting this or that political party, when they would appear to much better advantage supporting their families.

SPEAKING of ministers who use tobacco, Horace Mann in one of his lectures said: "He visits the bedside of the dying with a breath which, if the material essence could be infected by an earthly virus would subject the immortal soul to quarantine before it could enter the gates of Paradise."

MIRTH.

"A little nonsense now and then
Is relished by the wisest men."

"I PRESERVE my strength by husbanding it," said a wife, as she ordered her other half to bring in a bucket of coal.

POSITIVE, ice cream; comparative, wedding cake; superlative, paregoric! What can the last mean?

IN the first transports of delight the happy father rushed into the room, exclaiming: "I've got a son! It's a boy!"

DOBBS thinks that, instead of giving credit to whom credit is due, the cash had better be paid.

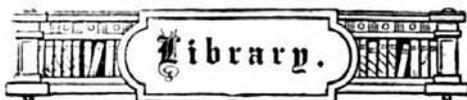
"I WISH you would pay a little attention to what I am saying," roared a lawyer at an exasperat-

ing witness. "I am paying as little as I can," was the calm reply.

OLD Gentleman.—"I am delighted to have met you, Miss Bonniface. I knew your grandmother; a very charming woman! You can form no conception of her grace and beauty."

Miss Bonniface—"Oh, yes, I can! People constantly tell me that I am her living image."

"ARISE with the lark and with the lark to bed," read a little boy from the "Third Reader." Then he stopped a moment and contemplated the picture of a lark at the head of the lesson. "Mamma," he said, "that lark's toe-nails are so long I'd be afraid to go to bed with him."



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor the Editor with recent publications, especially those related in any way to mental and physiological science. We can usually supply any of those noticed.

LONDON RHYMES. By Frederick Locker. Price \$1. New York: White, Stokes & Allen.

Is a little volume of jingles, mostly of a humorous character, in which the author hits off different phases of society that appeal to the grotesque sense. If it weren't for the humor in them, many of the lines could be taken as the yearnings of a love-sick swain. As it is, honest sentiment, doubtless, lies at the bottom of them. Called "London Rhymes," but their type would adapt them almost as well to New York or Boston for the occasions of nonsense in them. Yet the manner is foreign, and here and there a verse reminds one of Suckling. A verse from "The House-maid" is a fair specimen, we think, of Mr. Locker's quality:

"Wistful she stands—and yet, resigned,
She watches by the window-blind;
Poor girl. No doubt
The passers-by despise thy lot;
Thou canst not stir, because 'tis not
Thy Sunday out."

THE SPINNING-WHEEL OF TAMWORTH. By Rev. William A. Smith. 16mo, pp. 206. Price, 60 cents. New York: National Temperance Society.

This, to use the phrase of the author, is "an attempt to portray in simple language the natural career of the heart, and the inevitable result of following its leadings" when, we add, the environment is of a vicious nature, and a susceptible temperament renders the man especially prone to declension from the strict walks of integrity. The

pictures of life as it exists in prominent Western cities are not overdrawn, and the career of the chief actor is by no means a distortion or exaggeration. A spinning-wheel performs the chief part in arresting him from moral ruin at a critical point in his life, and thus gives title to the excellent story.

MISS JANET'S OLD HOUSE. By Annette Lucille Noble, author of "How Billy Went Up in the World," etc. 16mo, pp. 428. Cloth Price, \$1.25. New York: National Temperance Society and Publication House.

A story of New York life that develops certain practical considerations in which all are interested who love truth and decency for society's sake. The principal characters are well contrasted. A soured, eccentric old maid, having a large income and a narrow, selfish nature, and a young, bright, hopeful school-teacher, cousin to the eccentric virgin of uncertain age and snappish idiosyncrasies. These two characters, however, are so associated by means of well-chosen and well-related incidents that the cold, selfish nature of the spinster at length yields and contributes to the doing of good work for the poor and miserable. Two or three love stories are neatly woven into the current of the tale, but in such a manner as to relieve the reader of any suggestions of sensation—they naturally grow out of the relations of the parties, and are instructive in themselves.

CAPTAINS OF INDUSTRY; or, Men of Business who did Something Besides Making Money. A Book for Young Americans. By James Parton. 12mo, pp. 399. Price, \$1.50. Boston: Houghton, Mifflin & Co.

The latter volumes of this well-known writer have been especially distinguished for their utility. He writes now for the young, in the main; he would instruct them for the sober duties of life; and his subjects are those which illustrate usefulness. Short biographical sketches are generally interesting to young people. The average boy has ambition, and usually borrows some ideal from his reading, whom he would follow, if possible. Mr. Parton has done our young people a service in this book, for the reason that he has taken the most of his subjects from the commoner walks of life. The mechanic and the business man are those whose records are set forth in simple though attractive language, and the subjects are numerous enough to suit the most versatile of tastes. He shows that labor, earnestly and honestly pursued, develops the best qualities of the human mind; and how, in the end, it reaches the goal most eminently desirable, that of genuine utility to others. From David Maydole, the simple blacksmith, shaping hammers at his forge, to Richard Cobden, the seller of calicoes and muslins, Mr. Parton draws lessons that are rich, and that point to the old moral of Pope:

"Honor and shame from no condition rise,
Act well your part, there all the honor lies."

FIFTY SOUPS. By Thomas J. Murrey, formerly Professional Caterer of the Continental Hotel, Philadelphia, and other hotels. Cloth. Price, 50 cents. New York: White, Stokes & Allen.

We think that the housekeeper who can make a proper dish of soup can supply the ordinary needs of the stomach well, and if the materials be at command, there should never be the want, in any house, for a good meal. This little book is a compilation from the experiences of a professional cook, and needs no special commendation. A glance through the recipes shows that, for the most part, they are made up in a comparatively simple manner, that is, there are no long complications of what a hygienist would call specially objectionable ingredients. The items are not, as is the case with most of the cook-books, largely composed of condiments, with suggestions of butter, lard, or grease in some form.

PUBLICATIONS RECEIVED.

AMONG our Medical exchanges that are valuable to the professional and to the judicious general reader, who would know what the doctors are giving him, we would name *The Sanitarian*, a recent enlargement of which has added very considerably to its value. Its specialty, very closely adhered to, is the description of hygienic methods, systems of purification by sewerage and drainage, and the application of practical physiology in public and private life.

HAHNEMANNIAN MONTHLY, published by the Hahnemann Club of Philadelphia, is a leading organ of the Homeopathic school, well conducted, usually contains a good variety of matters of interest to the profession it represents.

THE MEDICAL SUMMARY, as its name indicates, is a publication devoted to brief considerations of medical topics, recent developments, and results in the medical practice of the schools generally.

THE AMERICAN JOURNAL, published in St. Louis, G. C. Pitzer, editor, is a prominent organ of the so-called Eclectic School. It is logical in its considerations of the subjects coming within its scope, and draws from all sources matters of importance to the practitioner.

THE CINCINNATI MEDICAL NEWS is a progressive Western organ, inclining to the old school or "regular" line. The field is broad, however, and its monthly numbers present a general *résumé* of late medical and surgical information.

THE KANSAS CITY REVIEW OF SCIENCE AND INDUSTRY, published in Kansas City, Mo., shows the growth of scientific inquiry in the West. It is a somewhat ambitious monthly, its topics being in great part of a special character, more likely to claim the attention of the accomplished observer

than the average reader; yet there is, in every number, a good deal of reading that is of interest to every one who would know something of the movements of the scientific world.

ARTISTIC TABLEAUX, with Picturesque Diagrams and Descriptions of Costumes. Text by Joseph Pollard. Arrangement of diagrams by Walter Satterly. This is a neat and sensible little book of its kind. It supplies hints of use to evening parties, and so furnishes a plea against the necessity for the eternal dance, dance of fashionable society. Most of the designs are adapted to the most refined and delicate tastes. Among the subjects are: *The Coquette*; *Evening Hanging out the Stars*; *Marguerite*; *Undine*; *Angel of Prayer*; *Clochette*; *Lochinvar*, in two scenes; *Joan of Arc*, in two scenes; *The Courting*, after Lowell; *Groups of Nations*, illustrative of Costume; *The Bachelor*; *A Little Comedy of Scenes*. Price, \$1.00. Published by White, Stokes & Allen, New York.

SCOTT-BROWNE'S BOOK OF SHORTHAND ABBREVIATIONS is a new and neatly arranged compilation of abbreviations, available to the use of the phonographic shorthand writer. There are of these 3,000, representing common and difficult words to write, besides several hundred very useful Phrase-Signs; 400 names of Persons, Places, and Corporations; and a table of Longhand Abbreviations used in business, many of which have never before been published. The engraved outlines are sharp and clear, and being arranged in alphabetical order it is very convenient for ready use by the reporter or student. Price, in flexible cloth, 50 cents.

OGILVIE'S HANDY BOOK of Useful Information is the title of a neatly bound little book of 128 pages, which contains a deal of information of practical value to every-day people. It simplifies the art of Reckoning, showing at a glance the correct answer to nearly 100,000 business examples in all kinds of Grain, Stock, Hay, Coal, Cotton, Merchandise, Interest, Wages, Measurements of Lumber, Logs, Cisterns, Tanks, Granaries, Wagon Beds, Corn-cribs, Cordwood, Hay, Lands, Carpenters', Plasterers', Bricklayers' Work, etc. There is also a considerable amount of Political, Historical, and Biographical data in a very brief form. Price, 25 and 50 cents, according to binding. J. S. Ogilvie & Co., Publishers, New York.

ECLECTIC MEDICAL COLLEGE of the City of New York. Twenty-fourth, Announcement and Catalogue of Students for the session of 1884-85. This document reports a prosperous condition of this Medical School.

THE NORTH AMERICAN REVIEW for October is notable for the importance and seasonableness of the topics treated. For instance: "Moral Character in Politics," "Benefits of the Tariff System," a sequel to "Evils of the Tariff System," in the Sep-

tember No., "Why I Wish to Visit America," "The Philosophy of Conversion," "The Origin of Yellow Fever," "Shall the Jury System be Abolished," "The Genesis of Tennyson's Maud," and "The Development of Machine Guns."

TEN YEARS A POLICE COURT JUDGE. By Judge Wiglittle. It can readily be imagined that a police court judge, of ten years' standing, must have some most instructive and amusing things to tell. His advantages for the study of human nature are almost unequalled. He can feel the pulse of society day by day; and if, as in the case of this author, he be a man of scholarly qualities, the book which contains the cream of his experience will be something worth attention. Judge Wiglittle is a veritable Judge, and his book contains facts ludicrous and facts pathetic, facts mortifying and facts encouraging, facts of law and facts of morality. It abounds in lessons and suggestions, especially with reference to temperance. Take it all in all, the book is unique, interesting, and suggestive. Funk & Wagnalls' Standard Library. Paper, 25 cents.

AN OLD SAILOR'S YARNS. No. 20, Standard Library. By Captain Roland F. Coffin. Paper, 15 cents. New York: Funk & Wagnalls. It is not a common thing for one who has served as a sailor in all positions, from before the mast to the captain's cabin, to have the art this author displays in relating his experiences. He tells them in the vernacular of the fore-castle, which is diverting enough to the landlubber who may be tired of the monotony of the average novel. We have many phases of sea-life, from whaling in the South Seas to blockade-running in the late civil war; and were it not for an occasional skeptical allusion to certain facts that have become commonplace to school-boys the book would be quite consistent throughout.

INTERNATIONAL HEALTH EXHIBITION LIBRARY (Royal Albert Hall) Catalogue. This collection bears directly on the subjects of Health and Education, and comprises the books that were contributed for exhibition and reference by various departments of Her Majesty's and foreign Governments, authors, publishers, societies, and others. It is a good thought to make a permanent library of these for public use, and it would be well if this example of our English cousins were followed in this country.

THE HOMILETIC MONTHLY is preparing for a grand enlargement, we are informed, that will add new attractions, and give a wider scope to this leading Homiletic Review of the world. As usual the Sermonic department is rich with discourses from able pens. The editorial departments contain facts, statistics, suggestions, information, criticism, and homiletical material of almost every kind.

THE PULPIT TREASURY, for November, is an excellent specimen of this aid to the clergyman and religious teacher. A good portrait of Dr. C. F. Deems opens to the contents. E. B. Treat, New York.

THE NEW YORK MEDICAL COLLEGE and Hospital for Women sends out its announcement for the twenty-second session, 1884-85, under improved relations, having now a commodious building and new facilities for its course of medical instruction. Dr. C. S. Lozier, Dean, New York.

A YOUNG GIRL'S WOOING. By E. P. Roe. Dodd, Mead & Co., New York.

LITTLE MEN AND WOMEN (D. Lothrop & Co., Boston) is a capital monthly for the small folks in our homes. Very large type and prettily illustrated. \$1 a year.

THE MUSICAL HERALD (The Musical Herald Co., Boston) is devoted to such matters as its title indicates, and is well conducted. Price, \$1 a year.



C. F. WELLS,
President.

NELSON SIZER,
Vice-President.

H. S. DRAYTON,
Secretary.

ALBERT TURNER,
Treas. and Bus. Manager.

FOWLER & WELLS CO.

On February 29, 1884, the FOWLER & WELLS CO. was incorporated under the laws of the State of New York as a Joint Stock Company, for the prosecution of the business heretofore carried on by the firm of FOWLER & WELLS.

The change of name involves no change in the nature and object of the business, or in its general management. All remittances should be made payable to the order of the

FOWLER & WELLS CO

The Subscription Price of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH is \$2.00 a year, payable in advance, or \$2.25 when premiums offered are sent to subscribers.

Money, when sent by mail, should be in the form of Money Orders, Postal Notes, Drafts on New York, or Registered Letters. All Postmasters are required to Register letters whenever requested to do so.

Silver or other coin should not be sent by mail, as it is almost sure to wear a hole in the envelope and be lost.

Postage-Stamps will be received for fractional parts of a dollar. These should never be stuck to the letters, and should always be sent in sheets; that is, not torn apart.

Change of post-office address can be made at any time by giving the old as well as the new address, but not without this information.

Letters of Inquiry requesting an answer should inclose stamp for return postage, and be sure and give name and full address every time you write.

All Letters should be addressed to Fowler & Wells Co., and not to any person connected with the office. In this way only can prompt and careful attention be secured.

Any Book, Periodical, Chart, etc., may be ordered from this office at Publishers' prices.

Agents Wanted for the PHRENOLOGICAL JOURNAL and our Book Publications, to whom liberal terms will be given.

Our Premium List, giving complete descriptions of the Premiums offered to subscribers, sent on application.

Our Descriptive Catalogues or our New List of "Books for Women" will be sent to any address on receipt of stamp for postage.

FOWLER & WELLS CO., Publishers,
758 Broadway, New York.

Announcement.—Many of our readers will be pleased to find the nominees of the late Presidential Convention at Chicago, in this month's issue, and we may without untoward pre-emption expect the articles entitled "Organic Cerebration," "A Craniologist's Paradise," "Sicily," and the sketch of Mr. J. R. Dodgson, to be read with much interest by our subscriber-friends generally. For next month we have in preparation, "How the Selfish Sentiments Combine," "The Cranial Affinities of Man and Ape," from a lecture by Prof. Virchow; "China: Its Age, Government, and Social Customs," illustrated; "The Citadel of Gaeta," "Trichinosis, or the Pork Disease," illustrated, and other topics, including especially the important one of the Democratic side of the contest for President and Vice-President, which will be illustrated with portraits of the candidates.

A Special Offer.—We desire to call the attention of our readers to the special premium offer made in this Number of the JOURNAL. It is to give any present subscriber who will send us one new name for one year, a copy of the new "American Dictionary and Compendium of Useful Knowledge," a work fully described on another page. This is the most comprehensive, compact, and useful work of its kind ever published, and one which should be at hand for ready reference. It is found extremely useful to those who have the large dictionaries, on account of its compactness and classifications. Please remember that this is not given as a premium, but only to present subscribers who will send us a new name. To the subscribers we also offer the premium book or books as usual. Read the advertisement and make an effort at once to secure at least one new subscriber.

A Journal Binder.—Believing it would serve the interests of a large number of our readers, we have arranged for the making of a binder of a suitable size and properly lettered, for the PHRENOLOGICAL JOURNAL. It is the best binder we have ever seen, strong and durable, and at the same time neat and attractive; can be used with one Number of the JOURNAL or with a year's Numbers, and will answer either as a temporary or permanent binder. We will send it by mail, post-paid, on receipt of 85 cents, or we will send it as a premium to any of our present subscribers who will send one new subscription at the regular rate, \$2.00, or at \$2.25, with premium to subscribers. For a more complete description and illustration, see advertising department.

For Girls.—The *Alpha*, published at Washington, D. C., says: "An Institute of Heredity and Hygiene was held in this city the first week in May, under the auspices of the W. C. T. U. Miss Mary Whitall Smith, who presided at the hygiene section, recommended 'For Girls,' published by Fowler & Wells Co., and sold at \$1.00, as the very best special physiology yet published, and warmly recommended it to the young women present as wise, chaste, and scientific. An influential friend writes: 'I consider "For Girls" a boon for this generation. It can not be too highly prized.' This seems to be the judgment of all thinking people that peruse this most excellent book. Its rapid sale confirms this opinion. Every family library should contain a copy, and every girl from fourteen to twenty years old should own one for herself. They cost but one dollar, but will save many hundred dollars in doctors' bills if the instruction is observed, and days, months, and years of suffering, and loss of time. Invalidism is one of the heaviest burdens of life and the most awful wastes of time and talent known to our generation. There is no compensation for this enormous expenditure. Even the spiritual graces that are supposed to develop under affliction are apt to be sickly and depressing, because in themselves they are destructive to life and not in the least adapted to the progressive needs of this progressive age."

A number of our readers have since our last issue sent for packages of the author's "Address to Mothers and Teachers" for distribution among those who would be likely to be benefited, and we can still send these free to all who would be willing to use them in this way, and they will most certainly do much good by calling attention to so important a subject as the proper education of young girls.

The Diet Question.—In response to a demand among the friends of food reform, we have been led to publish from Dr. Dodds' complete and valuable work, "Health in the Household," "The Reason Why" of the Diet Question, which is stated fully and clearly within the comprehension of any ordinary reader; and if this pamphlet could be circulated by the hundreds of thousands, it would do very much to promote the health and happiness of the people. It contains over 100 pages, and for the sake of its having a wide circulation, it is offered at the low price of 25 cents. To agents and friends of the cause who desire it for circulation we will make special terms. Address this office.

The Phrenological Journal.—*Heart and Hand*, in speaking of it, says: "This magazine is now in its 78th volume, and bids fair to continue its career of usefulness for as many more years. Any intelligent, progressive man or woman desiring a knowledge of the laws of human nature, or the science of health, should subscribe for it. The articles, always by specialists, are short, crisp, suggestive, and attractive to the general reader; the illustrations are enticing and right to the point. The portraits and biographical sketches of noted men and women are especially interesting. The qualities and traits of character that made them successful are explained according to the latest phrenological learning."

Removal.—Messrs. Reed & Barton, the well-known manufacturers of silverware, have removed from Broadway, to a fine store on Union Square.

The Family Physician.—An old-time customer from one of the Southern States reads for a few circulars giving contents of Shew's Family Physician, and says: "I think with these I can sell a number of copies of the book. With that book alone I took my wife out of the jaws of death, when two physicians left her to die." This is undoubtedly the best work of the kind yet published, and should be found in every family. A descriptive circular containing table of contents, notices of the press, etc., will be sent on application, and to those interested in the subject, we would like to send a dozen or more copies to be handed out among the people who would be benefited from having it.

Jay-Eye-See.—A large lithograph of this famous horse as seen on the track, is published by the Vacuum Oil Company, of Rochester, N. Y. The record of this horse shows what breeding, training, and culture will do for horses. There is also a very fine picture of him, and a number of other famous horses, in our book on "Horses: their Feed and their Feet."

Phillips' Newspaper Rate Book.—This is an octavo volume of about 400 pages, containing full description of advertising rates of the various periodicals having a circulation of 5,000 or more copies, with lists of papers devoted to specialties, etc. A valuable book to newspaper advertisers.

Caution.—We have received complaints that one S. F. Schaffer has been representing himself in Ohio as our authorized agent, and made offers which we do not make in our JOURNAL as to premiums, etc. We would say, the party referred to has no authority to act as agent for us, and it will be better for persons to send their orders direct to this office, than to pay the amount to him.

BUSINESS CARDS.

The Hammam, a Family Hotel, with Turkish Baths, 81 and 83 Columbia Heights, Brooklyn, N. Y. Three minutes' walk from Fulton Ferry.

Hygienic and Turkish Bath Institute and Hotel, 13 & 15 Light St., New York. M. L. Holbrook, M.D., Proprietor. Circular free.

Healds' Hygienic Home, Wilmington, Delaware. See advertisement. Send for circular. PUSSEY and MARY H. HEALD, Physicians.

Kilbourn Hygienic Institute. Quiet Home and Skillful Treatment. Kilbourn City, Wis. DR. McELROY. Send for circular.

Invalids' Home. A Manual Labor Hygienic Institute. G. V. GIFFORD, M.D., Prop'r, Kakoma, Ind.

The New York Medical College and Hospital for Women, and Homeopathic Dispensary for Women and Children. 213 West 64th Street, New York.

Agents Wanted to sell our "GOOD BOOKS FOR ALL." Special terms given. Now is the time for agents to work. Send for Premium List. Address FOWLER & WELLS CO., 753 Broadway, New York.

Printing and Stereotyping.—EDWARD O. JENKINS' SONS, Book Printing a Specialty. Estimates promptly furnished. 90 North William St., N. Y.

Annie Smith, M.D., 154 E. 49th St., City.

C. F. WELLS, NELSON SIZER, H. S. DRAYTON, ALBERT TURNER,
President. Vice-President. Secretary. Treas. and Bus. Manager.

FOWLER & WELLS CO.

On February 29, 1884, the FOWLER & WELLS CO. was incorporated under the laws of the State of New York as a Joint Stock Company, for the prosecution of the business heretofore carried on by the firm of FOWLER & WELLS.

The change of name involves no change in the nature and object of the business, or in its general management. All remittances should be made payable to the order of the

FOWLER & WELLS CO

The Subscription Price of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH is \$2.00 a year, payable in advance, or \$2.25 when premiums offered are sent to subscribers.

Money, when sent by mail, should be in the form of Money Orders, Postal Notes, Drafts on New York, or Registered Letters. All Postmasters are required to Register letters whenever requested to do so.

Silver or other coin should not be sent by mail, as it is almost sure to wear a hole in the envelope and be lost.

Postage-Stamps will be received for fractional parts of a dollar. These should never be stuck to the letters, and should always be sent in sheets; that is, not torn apart.

Change of post-office address can be made at any time by giving the old as well as the new address, but not without this information.

Letters of Inquiry requesting an answer should inclose stamp for return postage, and be sure and give name and full address every time you write.

All Letters should be addressed to Fowler & Wells Co., and not to any person connected with the office. In this way only can prompt and careful attention be secured.

Any Book, Periodical, Chart, etc., may be ordered from this office at Publishers' prices.

Agents Wanted for the PHRENOLOGICAL JOURNAL and our Book Publications, to whom liberal terms will be given.

Our Premium List, giving complete descriptions of the Premiums offered to subscribers, sent on application.

Our Descriptive Catalogues or our New List of "Books for Women" will be sent to any address on receipt of stamp for postage.

**FOWLER & WELLS CO., Publishers,
753 Broadway, New York.**

Practical Benevolence.—There is no way to do good more effectively among people than by the distribution of books in which practical instruction is given compactly and attractively. This we know at first hand from long experience, and we are glad to avail ourselves of any opportunity to spread the "good tidings" of mental and sanitary science for the healing of society. We have lately published books that have received a grateful welcome wherever they have gone, and some of our humane correspondents have distributed a goodly number of copies at their own cost. A very large number of "Brain and Mind" have found their way into worthy hands in this manner. The new book entitled "How to Study Character" that was noticed in the July Number, is admirably suited for distribution among educated and thinking people, and were we enabled to scatter a thousand or more copies, it would help much to instruct them with regard to the true nature of mind, and the rational basis of phrenological science. Written by a scholarly man, it is in the vein of scholarship, and yet clear and simple enough in style for all classes of reading people. Should any of our friends be disposed to send us \$10 or more for the purpose of circulating this book, we will supply copies at cost, and mail them to the addresses given.

Our Special Offer.—We wish to call attention again to our special premium offer of the new American Dictionary. Remember this is given to any present subscriber who will send us one new name for one year. This is in addition to the premium offered to subscribers, and only made to those who are at present subscribers to the JOURNAL. See announcement on another page.

Cottages, or Hints on Economical Building, is a publication containing 24 plates of medium and low cost houses, contributed by different New York architects, together with a descriptive letterpress, giving practical suggestions for cottage-building, compiled and edited by A. W. Brunner, architect, to which is added a chapter on water supply, drainage, sewerage, heating and ventilation, and other sanitary questions relating to houses. By William Paul Garbard, C.E. We have here a work containing plates of 23 cottages, showing elevation, floor plans and descriptions, with other details. The suggestions are very practical and useful, and especially valuable in the chapter by Mr. Garbard. It is undoubtedly true that the most of people give too little attention to sanitary questions in connection with building and their homes. We know of no work more likely to be useful to a man of moderate means that can be procured for the price of this, which is but \$1.00. Published by William T. Comstock, No. 6 Astor Place, New York.

The Stenograph. — Wonders will never cease. When we heard that a machine was in use that would do reporting as accurately and rapidly as phonography, we felt like scouting the idea. But remembering several wonderful things that have been produced before and since the telegraph and the art of photography, we concluded to suspend judgment. When opportunity offered we looked into the subject, and concluded to buy and try one of the machines. We employed a student of the art just out of the course of instruction. For six weeks we have had the little machine in use in our office, in the work of reporting descriptions of character, and find it answers our purposes well. The chief advantages of this method of reporting appear to be that any person trained to its use, can read the work of any other person as well as they can read their own. We have broken in at least one hundred and fifty beginners as phonographic reporters, and we have never had a beginner that could read his notes with such readiness and accuracy, as does our operator of the Stenograph; that is to say, does not so often need to consult the one who dictates the matter, to be helped out of difficulty in reading the report. The following is a fair statement of the nature and claims of the stenograph instrument. It is extremely simple and well adapted to its uses. A machine to write shorthand, and compete successfully with the pen and pencil systems, must be small, easily portable, nearly noiseless, so that it can be used in any place without annoying the speaker or listener. It must be strong, so that it can be used with rapidity, and not break down. All these requirements are met by this instrument, and its weight, including the case in which it is carried, is only three and a quarter pounds. The writing is done by five little markers which print through an inked ribbon upon a strip of paper, such as is used on the telegraph instrument. If these five markers or type are pressed against the paper at once, they produce a line of dashes of equal length across the paper strip. By varying the combinations of these markers, and printing with from one to five of them at a time, an alphabet of thirty-one letters or signs can be formed, each letter made by one motion of the hand. The facility with which these letters can be struck, is greatly increased by the doubling of the key-board; that is to say, there is a different set of finger-pieces for each hand, and the operator alternates the strokes, making one letter or sign with the right hand, the next with the left hand, and so on; in this way one hand is always raised while the other descends, and the speed is much greater than if the writing were all done with one hand; in fact, this perfect alternation of strokes is the great element of the instrument's speed. The inventor of the stenograph, Mr. M. M. Bartholomew, was for years a reporter with Isaac Pitman's system of phonography; his method of abbreviating for the stenograph has therefore much in common with phonography, but is not nearly so complicated. In speed, the stenograph, during its two years of existence, has proved sufficient for all purposes. Many of our rapid speakers have been reported, and several of its operators are competent court reporters. We don't see why it should not surpass, for practical purposes, the speed of legible phonography; for when the phonographer is pushed, he is compelled to make his characters less perfectly, and therefore it is liable to be less legible; but the strokes of the stenographic machine, if they are made at all, are ac-

curately made. This one fact, the arbitrary exactness of the work, though it be rapidly done, makes it legible, if there be no mistakes made in the operation. It is claimed, that from two to three months is ample time to learn all that can be taught of the use of the stenograph, time afterward only being required to attain speed. To learn phonography and practice it successfully, a person needs to be an adept with the pen, which some intelligent people never can be, many of whom might practice on the machine with skill and success. Isaac Pitman, of England, the inventor of phonography, and those who have followed him with or without modification, have done the world through their work a service second to none after the telegraph; and readers generally forget, if they ever knew, when they are reading at their breakfast-table in New York a speech made in London the night before at ten o'clock, that they are indebted to the phonographic reporter for its existence in print, as well as to the telegraph for its transmission.

The Family Physician.—A ready prescriber and hygienic adviser, with reference to the nature, causes, prevention, and hygienic treatment of diseases, accidents, and casualties of every kind. By Joel Shew, M.D. Extra cloth, \$3.00; leather, \$4.00. It contains over eight hundred pages, and nearly three hundred pertinent and appropriate illustrations, showing plainly the various subjects treated of, enabling the unprofessional reader to understand the construction of his physical organization; it covers the whole ground of human existence, from birth to old age, with all the conditions, diseases, and accidents to which the system is subject. The remedies recommended are hygienic, and directions are given for Home Treatment of the sick without medicines, which will enable the reader to avoid the necessity of calling a physician. Besides, the laws of life and health are made so plain as to enable one to avoid sickness and the infirmities which come from a violation of the conditions of Health. The work should be found in every family in the land. We print below two testimonials, showing something of the practical value of the work.

“WITCHERVILLE, ARK., June 13, 1884.

“My wife was attended by two of the best physicians in our county, and by them given up to die. I had never given any attention to the treatment of diseases; I knew very little of diseases or remedies, but I had in my house a borrowed copy of Dr. Joel Shew's 'Family Physician,' and by reading it rapidly, I was enabled to gain enough of its teachings to raise my wife to better health than she had enjoyed for many years.

“E. L. COMPERE, Editor Arkansas and Indiana Dept. *American Baptist Flag.*”

“WITCHERVILLE, ARK., May 11.

“Hoping to benefit others, I certify that I was attended by four drug-physicians, and was given up to die, and in this condition Rev. E. L. Compere, who does not allow himself to be called a physician, took my case and restored me to perfect health without a dose of medicine. I earnestly recommend those books that teach 'how to treat the sick without medicine.'”

“JOHN T. DAVIS, salesman with W. L. Walker & Co.”

Watkins' Glen.—We have received from Mr. A. J. Michner, the proprietor of the Glen Mountain House, Watkins, N. Y., a descriptive guide-book of their celebrated place. It gives statistics and particulars which will be of interest to all who think of visiting this famous resort.

A Correction.—In announcing Mr. Banson's work on "Fallacies in Progress and Poverty" in the last Number of the JOURNAL, the price was given as 50 cents in paper. As the book is somewhat larger than was first expected, we have decided to make but one edition, which will be substantially bound in handsome cloth, and sold at \$1.00. This is a most interesting discussion of the industrial, social, and political questions, and a book which is likely to attract a great deal of attention. It should be read by all who would be well informed on these subjects.

The Diet Question.—If you wish for a reason why a hygienic diet is more conducive to health, strength, and longevity, than the ordinary methods of eating and drinking, read "The Diet Question." This is a clear statement and consideration of the subject, and a book which should be widely read. Friends of health reform should aid as much as possible in giving this an extended circulation. To agents who wish to sell it, and to friends who wish it for distribution, it will be furnished at low prices. If there could be a fund of a few hundred dollars raised for the distribution of this work, it would do a great deal toward enlightening the people on this important subject.

Hand Treatment.—Among the many new developments for aiding the sick none has advanced more rapidly into striking notice than the principles of treatment by personal contact, known as Massage, Psychopathy, Magnetism, Mesmerism, Rubbing, Faith Cure, Movements, etc. It has the merit of combining the greatest possible good, often succeeding after the failure of all other appliances, with the least possible harm.

It breaks down contractions, opens channels of circulation, feeds barren tissues with new blood; as an anodyne it has no equal, balances arterial conditions, imparts direct vital force.

Mr. Leavitt, whose card appears in our columns, is a life-time devotee of this science, and cases as cited in his leaflet of a lady two years bed-ridden, unable even to raise her head from the pillow, demonstrate his knowledge of and power to use this vital force.

Mr. Leavitt has been a familiar in our rooms many years, and we readily vouch for the genuineness of any promises he may make, and the candor of any views in treating he may advance.

Parts of the Human Body.—The frequent reference made to certain parts of the human body in our publications, led us to prepare illustrations, with explanations, which will enable our readers to know the exact position or locality of each portion of the body. It is suggested that these be committed to memory, especially by the younger members of the family. It will be found a pleasant exercise to be able to name the different parts of your own body. The illustrations described above were published in Vol. 4, No. 1 of the SCIENCE OF HEALTH. Copies will be sent post-paid to any address, on receipt of 10 cents each.

The Thousand Islands.—We have received from Crossman & Sons, Alexandria Bay, N. Y., a copy of "Hints for Pleasure-Seekers," being a guide to the Thousand Islands. It contains historical items and much that is of interest, constituting a valuable guide-book, and will be sent on application as above.

"How to Feed the Baby" on the Pacific coast. Mrs. George W. Senebina, of San Francisco, applying to Dr. Page, 47 Rutland St., Boston, for treatment for chronic rheumatism, being led to correspond with him from having read his "Natural Cure" and "How," thus speaks of her recent experience with her babe: "At six months, from excessive feeding, he had become very fat, and finally became raw in all his creases, (and of course they were many and deep,) in his groins, down his legs in successive layers, under his arms, around his wrists, his neck, behind his ears, between his fingers, and even under his eyes. ['Oh, how cunning,' say the thoughtless; 'How horrible to see a fat baby,' say the wise and thoughtful.] We were giving him medicine constantly by our physician's advice. About one and one-half months ago my brother sent to me 'How to Feed the Baby.' I immediately throw away his medicines, and followed out your prescription, and within two weeks his sores (which were then in a dreadful state) were nearly all healed, and from that time to this he has been a different child. He is as happy and healthy as only a well-fed (in the proper sense) infant can be."

Water Cure.—A lady writing from the West says: "I have a copy of 'Water Cure in Chronic Diseases,' by Dr. James M. Gulley. This was published by you many years ago, and has been in our family twenty years, and has given each perfect satisfaction that I thought I would try to get some other books advertised in it. Please send your present catalogue." This is a work written on the old-fashioned heroic water-cure treatment, which is found in many cases to be very useful. It is still in the market, and sent by mail, post-paid, on receipt of price, \$2.00.

BUSINESS CARDS.

The Hammam, a Family Hotel, with Turkish Baths, 81 and 83 Columbia Heights, Brooklyn, N. Y. Three minutes' walk from Fulton Ferry.

Hygienic and Turkish Bath Institute and Hotel, 13 & 15 Lighthouse St., New York. M. L. Holbrook, M.D., Proprietor. Circular free.

Healds' Hygienic Home, Wilmington, Delaware. See advertisement. Send for circular. PUSKY and MARY H. HEALD, Physicians.

Kilbourn Hygienic Institute. Quiet Home and Skillful Treatment. Kilbourn City, Wis. Dr. McELROY. Send for circular.

Invalids' Home. A Manual Labor Hygienic Institute. G. V. GIFFORD, M.D., Prop'r, Kakoma, Ind.

The New York Medical College and Hospital for Women, and Homeopathic Dispensary for Women and Children. 213 West 54th Street, New York.

Agents Wanted to sell our "GOOD BOOKS FOR ALL." Special terms given. Now is the time for agents to work. Send for Premium List. Address FOWLER & WELLS CO., 758 Broadway, New York.

Printing and Stereotyping.—EDWARD O. JENKINS' SONS. Book Printing a Specialty. Estimates promptly furnished. 23 North William St., N. Y.

Annie Smith, M.D., 154 E. 49th St., City.

ADVERTISEMENTS.

RATES FOR ADVERTISING.

One Full Page.....	\$75.00
One Half Page.....	40.00
Less than Half Page. .50 cts. a line, agate measure.	
Second or Third Page of Cover, or First and Last Page of Inset.....	\$150.00
Last Inside Page.....	150.00
Fourth Page of Cover.....	Special Rates.
Business Cards.....	75 cts. a line.
Business (Reading Matter).....	\$1.00 a line.

Advertisements must be sent in by the first of the month, to be in time for the month following. No extra charge for inserting cuts. No objectionable advertisements accepted at any price.

FOOD BETTER THAN MEDICINE

We provide vital, blood-making foods for all diseases. Sufferers from Dyspepsia, Constipation, Nervous Prostration, and Diabetes, should send for our free pamphlets.

HEALTH FOOD CO.,

74 Fourth Ave., New York.

Brooklyn office—9 Clinton Street.
Boston office—63 Commercial Street.

JAMES PYLE'S



PEARLINE

THE BEST THING KNOWN FOR
WASHING AND BLEACHING
IN HARD OR SOFT, HOT OR COLD WATER.

SAVES LABOR, TIME and SOAP AMAZINGLY, and gives universal satisfaction. No family, rich or poor should be without it.

Sold by all Grocers. **BEWARE** of imitations well designed to mislead. **PEARLINE** is the **ONLY SAFE** labor-saving compound, and always bears the above symbol, and name of **JAMES PYLE, NEW YORK.**



JUST PUBLISHED.
COTTAGES; or, Hints on Economical House Building. Containing 24 plates of Cottages, ranging in cost from \$500 to \$3,000, together with suggestions regarding estimating, location and planning of buildings, sanitary arrangements, etc. Two vols., handsomely bound in cloth, mailed on receipt of \$1. WM. T. COBSTACK, Pub., 6 Astor Place, N. Y.

THE AMERICAN
Institute of Phrenology.

SESSION OF 1884.

No subject attracts more interest than the study of human character. The prosperity of business men depends on knowing men; the success of a teacher hinges on a knowledge of the pupils in their different capacities and adaptations; to study how to control and manage mind is of the first importance to lawyers; and he who knows mind best is in the greatest request in the trial of important cases. It is not the lawyer who can make the grandest speech, but the one who can find out most in respect to a case, and get it before the jury. But no man needs to understand mind as taught by Phrenology more than the minister of the gospel. He has not only the youth of his parish in their inchoate and formative states of mind and character to deal with, but he has the solid, ripened, concentrated characters of the adult to treat. Ministers who have been students and taken a course of instruction in the "Institute of Phrenology," have doubled their power to mold and control, lead and instruct their flocks, and they write to us in glowing terms of the aid that Phrenology has been to them. Those who are isolated from intimate contact with mankind, who hew stone and timber, and wield the rude implements of hard work, need to know less of mental philosophy and how to use it in exerting an influence upon others; but three-quarters of all the business, professional, and commercial work of this day and age, is successful or a failure, in proportion as the actors understand human life, and the characters with whom they have to deal.

Instruction in mental philosophy as taught by Phrenology, will greatly increase any man's power and influence. Commercial agents would learn how to meet every man smoothly and profitably, and some would win success thereby, who now are obliged to do it largely by extravagant misrepresentations. The truth well told and properly adapted to each particular case, will secure success easily; while the same earnestness wrongly directed will incur defeat at least half the time. To know the human faculties and judge each man as regards his strong or weak points, puts the observer into relations with the human race, like those of the musician in regard to the musical capabilities of his instrument when he would render a score before him.

On the first Tuesday of October, namely, the seventh day of the month, the annual course of instruction in the "American Institute of Phrenology" will be opened. For Circular containing full particulars of the course of instruction, terms, and so forth, please address

H. S. DRAYTON, Secretary,
753 Broadway, New York'

C. F. WELLS, NELSON SIZER, H. S. DRAYTON, ALBERT TURNER,
President. *Vice-President.* *Secretary.* *Treas. and Bus. Manager.*

FOWLER & WELLS CO.

On February 29, 1884, the FOWLER & WELLS CO. was incorporated under the laws of the State of New York as a Joint Stock Company, for the prosecution of the business heretofore carried on by the firm of FOWLER & WELLS.

The change of name involves no change in the nature and object of the business, or in its general management. All remittances should be made payable to the order of the

FOWLER & WELLS CO

The Subscription Price of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH is \$2.00 a year, payable in advance, or \$2.25 when premiums offered are sent to subscribers.

Money, when sent by mail, should be in the form of Money Orders, Postal Notes, Drafts on New York, or Registered Letters. All Postmasters are required to Register letters whenever requested to do so.

Silver or other coin should not be sent by mail, as it is almost sure to wear a hole in the envelope and be lost.

Postage-Stamps will be received for fractional parts of a dollar. These should never be stuck to the letters, and should always be sent in sheets; that is, not torn apart.

Change of post-office address can be made at any time by giving the old as well as the new address, but not without this information.

Letters of Inquiry requesting an answer should inclose stamp for return postage, and be sure and give name and full address every time you write.

All Letters should be addressed to Fowler & Wells Co., and not to any person connected with the office. In this way only can prompt and careful attention be secured.

Any Book, Periodical, Chart, etc., may be ordered from this office at Publishers' prices.

Agents Wanted for the PHRENOLOGICAL JOURNAL and our Book Publications, to whom liberal terms will be given.

Our Premium List, giving complete descriptions of the Premiums offered to subscribers, sent on application.

Our Descriptive Catalogues or our New List of "Books for Women" will be sent to any address on receipt of stamp for postage.

FOWLER & WELLS CO., Publishers,
758 Broadway, New York.

For October.—In the next Number of the PHRENOLOGICAL JOURNAL, etc., the conclusion of Prof. Virchow's lecture on the Cranial Affinities of Man and the Ape will appear, besides the portraits of Mr. John P. St. John and General Benjamin F. Butler, the candidates respectively of the Temperance and Anti-Monopoly parties. Also a psychological sketch entitled "Rather Strange"; A literary consideration of "Samson Agonistes"; An inquiry into the state of New England society, entitled "Will the Puritan Race Perish?" Another installment of "Organic Cerebration," in which the selfish propensities are analysed; The first paper in a series to appear, entitled "The Christian Church—Its History and Divisions." Besides a great variety of shorter articles and sketches.

A Trial-Trip.—The publishers of periodicals resort to different methods of introducing their publications, advertising in the newspapers, the distribution of circulars and prospectuses, the employment of agents, etc. We have found from experience that the old saying, the "proof of the pudding," etc., holds good in regard to the PHRENOLOGICAL JOURNAL, and therefore that the best means of securing subscribers is to have the JOURNAL examined and read. To accomplish this purpose we offer the JOURNAL for the last three months of this year, "on trial," at half the usual subscription price, making it only 25 cents for three months' subscription. This will certainly enable all to try the JOURNAL, and it will, we know, result in our receiving many yearly subscriptions. It is hoped our present readers will each call the attention of their friends to this offer, and so help to extend the circulation of the JOURNAL. \$1 will pay for four subscriptions for three months. Let every reader try to send at least \$1. This is a good chance to do a little missionary work, and as an additional incentive we will send any of our 25-cent publications to any of our readers who will send us one dollar for four trial-trip subscribers.

The Man Wonderful in the House

BEAUTIFUL. By Chilton B. Allen, A.M., LL.B., M.D., and Mary A. Allen, A.B., M.D. The attention of every reader will be attracted by the above title, and his curiosity awakened. Should such an one ask, "What can such a book be about?" we would answer, it is about anatomy, physiology, and hygiene, and the effects of stimulants and narcotics upon the human body, treated in a style so instructive, and at the same time so charming, that all who read it will be grateful to the curiosity which led them to its perusal. Under the guise of an allegory the reader is made acquainted with scientific truths, finding them none the less valuable because made palatable. The work was written with the idea of being not only placed in the hands of the readers in the family circle, but has been also adapted to the use of schools, both as a text-book and as a reader. One who has seen the MS. and is competent to judge, writes as follows:

"Mollere's plays endured the test of the criticism of his servant. The chapters of this work of the Doctors Allen have riveted the attention of a little girl of intelligence only seven years of age. Anatomy and physiology made attractive to a child must be interesting to any man or woman. I find a great deal of science, of felicitous analogy, and graceful expression in these terse and instructive chapters. The scientific training and experience, at home and abroad, of the authors, give me confidence in the technical accuracy; the agreeable style charms my attention, and will, I think, delay any one who will take the book up. I think for public instruction it would make a most popular hand-book.

CHARLES M. TYLER,

"Pastor of the First Cong. Church, Ithaca, N. Y."

The reference in the above letter makes it necessary to state, that in order to get a great book its author should have not only a fondness for the subject and a desire to write a book, but, previously, there must have been the necessary training. The authors of this work have received the best instruction to be had in our own universities, and have spent three years in Europe under the instruction of the ablest professors in Vienna, Paris, and London, and their work shows that they have profited by their opportunities. A little lady fifteen years of age, who has read the chapters that appeared in the *Christian Union*, writes to the authors as follows:

"Trusting that you will pardon me, I will now answer your questions. In the first place I must confess that I have stolen from your 'House Beautiful,'—although you may not have missed it,—the idea of a composition for which I received the highest mark I have ever won in that direction, and so you see I have an added interest. I must tell you,—though I know you will not give me much credit for observation,—that I read several of the chapters without noticing the names of the authors, and that I enjoyed them exceedingly, but my interest in the 'House' was not diminished when I learned that our friends were the describers. I sincerely hope that you will have them published in book form, that they may give as much assistance to other explorers of the mysteries of the 'House' as they gave me.

NELLIE M. CHANDLER.

"Buffalo, N. Y."

We could have no better authority as to the literary execution of the work than Moses Coit Tyler, Prof. of Literature in Cornell University. He writes as follows:

"I have examined several chapters of a book entitled 'The Man Wonderful in the House Beautiful,' by the Drs. Allen, and as to the literary execution of the work I can speak without hesitation. I am surprised at the success of the authors in giving interest, charm, even amusement in connection with a subject by many people considered as merely technical and dry. I should think the book would have great success even for the general reader, and as a school-book, as a manual at once of reading and physiology, it would be simply delightful. It is sincerely to be hoped that the book may be placed before the public as its great merits deserve. MOSES COIT TYLER.

"ITHACA, N. Y., July 12, 1884."

These letters are only characteristic specimens of many that have been received. They demonstrate that the book "The Man Wonderful in the House Beautiful" has strongly impressed those who have seen it. Heretofore our school readers have been made up of entertaining extracts, good enough in themselves, but used principally as an exercise to teach children how to read. It would be much better to put into them that which it is important that the children should remember, especially if it is equally well expressed. For this reason the scientific readers are a great advance, and should be adopted in every school. To the heads of household it is not only of interest, but economy to possess a book which is so attractively written, and so full of important and necessary facts, that it is a library in itself, and can be read and re-read until the ideas are thoroughly impressed upon the mind. For a more full and complete description see announcement on another page.

Fallacies.—Mr. Hanson's work on the *Fallacies in Progress and Poverty* is now published and attracting the attention of thinking people, including other—as well as land reformers—and those interested in the theories of Henry George. Mr. Hanson is an original thinker, and his work furnishes food for consideration. We publish the following from the *Newark Evening News*: "Social Problems Discussed.—By the bold stand which he has taken on social questions, and in consequence of some of the peculiar ideas which he has advanced, Mr. Henry George has attracted to himself considerable notice within the past year. Mr. William Hanson, in a neatly printed volume from the Fowler & Wells Co. of New York, has attacked what he describes as the 'fallacies' in Mr. George's 'Progress and Poverty,' and at the same time crosses swords with Henry Dunning MacLeod, on social problems. Mr. Hanson in his preface says: 'he has given eighteen years' thought to the solution of the causes that lead to so much privation and misery among wage-workers, and he finds that they are the result of a transgression of God's laws. Mr. Hanson is a logician, and his work is boldly written, and is rich in material for thought in the vital question with which it deals.'" *The Albany Argus* says: "A thoughtful treatise, bristling with telling arguments clearly and precisely put. The fallacies in the writers whose names are mentioned in the title are boldly exposed, although Mr. Hanson is as radical as Henry George himself, and has a warm sympathy for the purpose of the Land Reformer. All students of economics will be glad to learn of his theories and will respect the motives which impelled him to give them utterance."

An Excursion.—Dr. D. E. Moore, of San Francisco, writes us that he proposes to bring a party of friends East on a visit, and to return with a party of settlers for California, in the early part of November. Dr. Moore will give any information as desired, and letters addressed to him at Salem, Ohio, will be received.

Kind Words for "How to Feed the Baby" and its author. M. S. Pickett says:

"184 Richmond Street, Boston, July 19, 1881.

"Dr. C. E. Page, 47 Rutland Street, Boston.

"Dear Sir: Our baby, who has been such a sufferer, we have now put upon your system of feeding, as directed in 'How to Feed the Baby,' and he is already better."

Mrs. M. R. Mills, (wife of the Presbyterian Preacher), Champlain, N. Y.

"Dr. C. E. Page:

"Dear Sir: It is now five days since I received your letter with directions as to baby's diet, which I immediately adopted. She has not thrown up a drop since the change was made, and there has been improvement in one other respect, viz.: her bowels have moved every day. . . . I shall look anxiously for your reply to this, for I feel so fully convinced that you will be able to help us further in this emergency." [Reference is here made to special symptoms still present.] "Assuring you of my hearty sympathy with, and appreciation of, your efforts for the benefit of mothers and children, in the publication of 'How to Feed the Baby,' I remain
Respectfully yours."

Mrs. Sara Young Gates, Provo, Utah, July 10, 1884.

Mrs. Gates, after describing her baby, and the agreeable change in his condition since the adoption of the reform system as advocated in the "How," concludes thus:

"And now, Dr., how can I express to you the gratitude I feel for all I have learned through you and your good book, 'How to Feed the Baby.' If the gratitude of all the mothers in America whom you have helped were united in one grand anthem, verily the corners of the earth would tremble with the mighty melody. How many mothers teach their children all good things except how to make themselves healthy, happy, and pure lived! You, who have opened our eyes, and sounded the loud alarm of truth in our ears,—what can we say to you, but God bless you! God bless and prosper you and yours! Yours gratefully.

"To Dr. C. E. Page, 47 Rutland Street, Boston."

Twins reared under the "How to Feed the Baby" system.

H. H. Watson, Banker at Frankfort, Ky., July 18, '84.

"Dr. C. E. Page:

"Dear Sir: Enclosed please find check for first month's treatment." [Advance fee for his own case, dyspepsia.] "The babies are all right. I will write you about them 4th Aug., when they will be five months old. But for your book 'How to Feed the Baby,' I fear we should have lost them.

"Yours gratefully

"H. H. WATSON."

New Edition.—We are now preparing for the press, to be issued at once, a new edition of "The Temperaments." This will contain many new and an additional number of portraits, thereby greatly increasing the value of the book. It will be printed on extra super-calendered paper, and is a work which should be in the hands of every intelligent reader. The temperaments is a subject easily studied and understood, and one which has a wide range of application, and in this work its relation is discussed in all its bearings, including education, health, the marriage relations, occupations, etc. Price \$1.50, by mail, post-paid.

Boots and Shoes.—All wear boots and shoes, and all are desirous of wearing the best; and it is usually the case that the best are the cheapest in the end, though never the lowest-priced. In this connection we wish to call attention to the advertisement of McComber's Patent Boots and Shoes. Mr. McComber has devoted many years to the perfecting of his system of making boots and shoes that would fit the feet properly, and has built up a large trade, notwithstanding the fact that his prices were, necessarily, owing to his methods of manufacturing, much higher than the price charged by ordinary shoe-makers for ordinary goods; but he now announces that he has so far perfected his system, and a large collection of lasts, that he can make up sizes to fit the most of people in large quantities, and at greatly reduced prices, thereby placing his goods within the reach of the people; and we feel confident that it will result in a very largely increased introduction of his Patent Boots and Shoes. We have thoroughly tested his system, and are fully satisfied that it is all that he claims for it, and we would recommend every one of our readers to send for his illustrated descriptive pamphlet and price-list, and then give the matter a thorough trial. When writing for the above, mention the *PHRENOLOGICAL JOURNAL*.

Cook's Excursionist.—The August Number of *Cook's Excursionist and Tourist Advertiser* contains a great deal of general information in regard to their extensive excursions, now including all parts of the world; not only are their European tours popular, but they have also extended their arrangements to the principal points in our own country, and issue round-trip tickets to all the principal points. Those who are travelling for either business or pleasure will do well to send for programmes, etc., to Thomas Cook & Son, 261 Broadway, N. Y.

"The Appalachian Philosopher"

says: "Good Books.—We do not deem it the duty of a newspaper to print editorial notices or 'puffs' of those who advertise in it, as it is not a very easy matter to estimate exactly what an advertisement is worth to any firm or individual, but we know we are conferring a great favor on our readers by calling their attention to an advertisement in this issue headed 'Good Books for All.' The well-known firm of Fowler & Welle Co., 733 Broadway, New York, is an honorable house of nearly fifty years' standing, and their store is one of the sights of the great metropolis. The choice variety of books they get out are of immense value to the human race, and are the products of advanced thinkers, reformers, and scientific men, and should be in every household. We assert without fear of successful contradiction that *THE PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH* is the best magazine for the price in the United States."

Health Haven.—This is the name given to a settlement or colony located near Tracy City, Tenn., in which many health reformers are interested. A circular, giving full particulars, will be sent by addressing J. W. Lloyd, as above.

Agents Wanted.—We want agents to sell "The Man Wonderful," "For Girls," "For Mothers and Daughters," and our other popular publications.

The Man Wonderful in the House

Beautiful. An Allegory. Teaching the Principles of Physiology and Hygiene, and the effects of Stimulants and Narcotics. For Home Reading. Also adapted as a Reader for High Schools, and as a Text-book for Grammar, Intermediate, and District Schools. By Chillon B. Allen, A.M., LL.B., M.D., and Mary A. Allen, A.B., M.D., Members of the Broome Co. (N. Y.) Medical Society. 370 pp., 12mo, extra cloth, price \$1.50. New York, FOWLER & WELLS Co., Publishers, 753 Broadway.

Treatises on physiology, anatomy, and hygiene, "adapted to popular reading," are becoming very numerous; their titles stare us in the face on every bookseller's shelves. Then, too, there are physiologies for the use of schools, that reduce the subject of human structure and growth to a few principles, and are couched in such rudimentary terms as it is thought will make their teaching clear enough to be comprehended by the juvenile intellect. Interest in such study is found, however, to be dependent mostly upon the teacher's ability to explain and illustrate the facts presented by the author, for the abridged statements are for the most part dry reading to boys and girls, and difficult for them to understand, even with illustrations accompanying them that the physician would pronounce admirable. The book to which attention is called deals with the facts of physiology, but treats them in a novel manner. It is a form of science in story, yet more than that, for the stories are successive pictures of actual conditions and processes. Using the parallel of a dwelling house, with whose plan and common details, from foundation to peak, children as well as grown folks are familiar, the authors describe in an easy talking style the different parts of the human body and their respective uses. Unnecessary technicalities are avoided, but the explanations, simple as they may seem to the expert, are surprisingly thorough, and found to contain more genuine information than the majority of the plain treatises to which allusion has been made. The book is as attractive as an oriental story from beginning to end, and no bright boy or girl who opens it will be likely to lay it aside before reaching the end. The part played by Alcohol in our domestic affairs is most happily set out by Dr. Allen in the allegory by the giant Gohul, while other common habits and practices of an injurious nature are made the topic of spirited illustration. Numerous well-chosen designs showing the more important organs and apparatus of the "Man Wonderful" add their interest to the volume, and a series of questions at the close for each of the forty-three chapters makes it a convenient text-book for the school-room.

The Best Investment.—Mr. J. P. H.,

Charlottesville, Va., says: "I am familiar with many of your publications, and know how to appreciate them. The purchase of Dr. Trall's Hydropathic Cyclopaedia has proved to be the best investment I have ever made." Testimony similar to this can be given by hundreds of the readers of Dr. Trall's health publications, and they have done for mankind a world of good. All who are interested in the preservation of health, strength, and long life, should send for our catalogue containing a list of his works.

The Health Food Co. continue to supply their invaluable food productions, adapted to the sick and well, but specially valuable to those requiring strengthening and building up. See advertisement and send for circulars.

THE AMERICAN Institute of Phrenology.

SESSION OF 1884.

No subject attracts more interest than the study of human character. The prosperity of business men depends on knowing men; the success of a teacher hinges on a knowledge of the pupils in their different capacities and adaptations; to study how to control and manage mind is of the first importance to lawyers; and he who knows mind best is in the greatest request in the trial of important cases. It is not the lawyer who can make the grandest speech, but the one who can find out most in respect to a case, and get it before the jury. But no man needs to understand mind as taught by Phrenology more than the minister of the gospel. He has not only the youth of his parish in their inchoate and formative states of mind and character to deal with, but he has the solid, ripened, concentrated characters of the adult to treat. Ministers who have been students and taken a course of instruction in the "Institute of Phrenology," have doubled their power to mold and control, lead and instruct their flocks, and they write to us in glowing terms of the aid that Phrenology has been to them. Those who are isolated from intimate contact with mankind, who hew stone and timber, and wield the rude implements of hard work, need to know less of mental philosophy and how to use it in exerting an influence upon others; but three-quarters of all the business, professional, and commercial work of this day and age, is successful or a failure, in proportion as the actors understand human life, and the characters with whom they have to deal.

Instruction in mental philosophy as taught by Phrenology, will greatly increase any man's power and influence. Commercial agents would learn how to meet every man smoothly and profitably, and some would win success thereby, who now are obliged to do it largely by extravagant misrepresentations. The truth well told and properly adapted to each particular case, will secure success easily; while the same earnestness wrongly directed will incur defeat at least half the time. To know the human faculties and judge each man as regards his strong or weak points, puts the observer into relations with the human race, like those of the musician in regard to the musical capabilities of his instrument when he would render a score before him.

On the first Tuesday of October, namely, the seventh day of the month, the annual course of instruction in the "American Institute of Phrenology" will be opened. For Circular containing full particulars of the course of instruction, terms, and-so-forth, please address

H. S. DRAYTON, Secretary,
753 Broadway, New York.

C. F. WELLS,
President.

NELSON SIZER,
Vice-President.

H. S. DRAYTON,
Secretary.

ALBERT TURNER,
Treas. and Bus. Manager.

FOWLER & WELLS CO.

On February 29, 1884, the FOWLER & WELLS CO. was incorporated under the laws of the State of New York as a Joint Stock Company, for the prosecution of the business heretofore carried on by the firm of FOWLER & WELLS.

The change of name involves no change in the nature and object of the business, or in its general management. All remittances should be made payable to the order of the

FOWLER & WELLS CO

The Subscription Price of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH is \$2.00 a year, payable in advance, or \$2.25 when premiums offered are sent to subscribers.

Money, when sent by mail, should be in the form of Money Orders, Postal Notes, Drafts on New York, or Registered Letters. All Postmasters are required to Register letters whenever requested to do so.

Silver or other coin should not be sent by mail, as it is almost sure to wear a hole in the envelope and be lost.

Postage-Stamps will be received for fractional parts of a dollar. These should never be stuck to the letters, and should always be sent in sheets; that is, not torn apart.

Change of post-office address can be made at any time by giving the old as well as the new address, but not without this information.

Letters of Inquiry requesting an answer should inclose stamp for return postage, and be sure and give name and full address every time you write.

All Letters should be addressed to Fowler & Wells Co., and not to any person connected with the office. In this way only can prompt and careful attention be secured.

Any Book, Periodical, Chart, etc., may be ordered from this office at Publishers' prices.

Agents Wanted for the PHRENOLOGICAL JOURNAL and our Book Publications, to whom liberal terms will be given.

Our Premium List, giving complete descriptions of the Premiums offered to subscribers, sent on application.

Our Descriptive Catalogues or our New List of "Books for Women" will be sent to any address on receipt of stamp for postage.

FOWLER & WELLS CO., Publishers,
[753 Broadway, New York.]

Next Month we shall give the readers of the PHRENOLOGICAL JOURNAL, etc., a sketch of the gift of France—Bartholdi's statue of Liberty, for New York Harbor, with portrait of the artist and views of certain of his works; A sketch of Zygmund Milkowski, the Polish patriot and author; The views of an eminent American surgeon on Brain Organization; A description of a School for the Feeble-minded; Notes on Rheumatism, by the Editor; the critique of Milton's drama of "Samson Agonistes," and the essay, "Will the Puritan Race Perish?" for which our space proved insufficient this month; A practical essay on the Power of Temperance Education, and a social sketch entitled, "Reaping the Whirlwind," will also help toward supplying an acceptable variety to the readers of the JOURNAL.

A Trial-Trip.—The publishers of periodicals resort to different methods of introducing their publications, advertising in the newspapers, the distribution of circulars and prospectuses, the employment of agents, etc. We have found from experience that the old saying, the "proof of the pudding," etc., holds good in regard to the PHRENOLOGICAL JOURNAL, and therefore that the best means of securing subscribers is to have the JOURNAL examined and read. To accomplish this purpose we offer the JOURNAL for the last three months of this year, "on trial," at half the usual subscription price, making it only 25 cents for three months' subscription. This will certainly enable all to try the JOURNAL, and it will, we know, result in our receiving many yearly subscriptions. It is hoped our present readers will each call the attention of their friends to this offer, and so help to extend the circulation of the JOURNAL. \$1 will pay for four subscriptions for three months. Let every reader try to send at least \$1. This is a good chance to do a little missionary work, and as an additional incentive we will send any of our 25-cent publications to any of our readers who will send us one dollar for four trial-trip subscribers. We will send a package of our prospectus to any one who will agree to distribute them, and a number of our pictorial posters for putting up in public places.

NOTES ON OUR PUBLICATIONS.

NEW BOOKS.

Our Fall announcements include some books that will be of special interest to our readers. First, we would call attention to **The Man Wonderful in the House Beautiful**. This is a wonderful book, and a wonderful subject is treated in a beautiful manner, as will be seen from the announcement on another page. It is a work on physiology and hygiene in the form of an allegory, and although it is hardly out, yet we have sufficient evidence of the appreciation of its value and importance to assure us that its publication will be a great success. The following letters have already been received from persons to whom advance copies were sent:

Rev. Asher Anderson, Passaic, N. J., says: "So far as my time has allowed I have read it, and with no little enjoyment. Such a book ought to be in every home. It is as *healthful* as it is *simple*; *profitable* as it is *plain*.

"I have long desired to have just such studies introduced into our schools. We devote more attention to the stars than we do to our stomachs; and our children learn more of the firmament they can not reach than they do about the food they are to handle every day of their lives.

"May the authors see of the travail of their souls and be satisfied."

Charles Collins, of the "Bradford Mansion School," Eye, N. Y., says: "I am in receipt of your book, and I can not but congratulate you upon the character of the 'Man Wonderful,' and its adaptiveness to secure the attention of our young people. It is found to be a most successful text-book, and I shall be greatly pleased to add to its circulation and efficiency in any way possible."

J. C. Zachos, "Curator of the Cooper Union," says: "Among the many useful publications of the Fowler & Wells Co., this is one of the most attractive and useful; attractive in style, and well calculated to impress the youthful mind.

"How to conduct the personal and physical life in purity and health, is the foundation of all the happiness that man can aspire after in this world. It is the most important thing in the teaching of the young, yet in consequence of some intrinsic difficulties connected with this department of instruction, it is the most difficult to treat in an attractive form for the children of our schools and academies; to make a book not only interesting in itself, but to furnish all the proper subjects of comments and instruction to a judicious teacher."

M. L. Holbrook, M.D., editor of the *Herald of Health*, says: "I have received the copy of 'The Man Wonderful in the House Beautiful,' by Drs. Allen, and will say that it is a most creditable book, and it would be a most excellent text-book for our common schools. I hope a million copies may be sold."

J. B. Gibbs, Esq., President "Manhattan Temperance Association," says: "How shall I express myself for the not only beautiful, but so useful a present as the 'Man Wonderful, in the House Beautiful'? It is a treasure indeed, and one that I shall peruse with great interest, as you say, 'After reading one chapter you must read the whole book.' It will prove so in my case. I read only part of a chapter, and am in for the whole book now. When we open our great meetings this fall, I shall make it a point to advertise this valuable book to the multitudes."

The Editor of the *Christian Union* says: "The admirable and novel series of articles on physiology by Drs. C. B. and Mary A. Allen, published in the *Christian Union* early in the present year, have just been issued in book form by the Fowler & Wells Co., New York. Large additions have been made to the material with which the *Christian Union* readers are familiar, and the book is now a complete and extremely interesting

account of the human body, its functions, its organization, and its proper care. So many letters have come to us inquiring whether these articles are to appear in book form, that we have no doubt of a large sale for the 'Man Wonderful in the House Beautiful.'"

Mrs. Shepherd, the author of that most admirable book, "For Girls," says: "To the weary plodder in the necessarily dry and difficult intricacies of the usual text-books on the human body, this volume comes as a refreshing recreation, serving to return the student with renewed vigor and interest to the old study.

"All who *love* physiology, and especially those who *hate* it, should purchase this work, for both classes will find it as fascinating as a novel, while at the same time containing that knowledge which even the baster must admit is essential; hate would vanish in this absence of hard names and dull descriptions.

"Every parent who longs to see his boys choose for themselves to grow up free from alcohol and tobacco tyranny will obtain the desire of his heart by placing this book in their hands.

"Better still would it be, if all school-boards should prescribe it as a compulsory study, thus giving children both sides; the voice of science vs. the possible opposing voice of home influence. It seems impossible that a child should admit 'rot' and poison into his stomach of his own accord after reading the candid examination which is here given."

Teachers should be greatly interested in this, as it is certain to render the teaching and the study of physiology a pleasure instead of a drudgery, which it is now found to be in some cases; and the work will be found especially useful to teachers who find it necessary to make some extra preparation to comply with the recent legislation of some States on this subject (price, \$1.50).

Three Visits to America is the title of a work just completed by Emily Faithfull, of England; and during her last visit to this country she arranged with us to become the publishers. In it she records her impressions of our country, our institutions, and our people. The work is prepared with a view of making it interesting to the American as well as the English public, and its chatty and explicit style will make it interesting in the hands of any intelligent reader. Her criticisms on many things are sharp, but always in an appreciative manner. It will make a large 12mo volume of more than 400 pages; will be handsomely printed and bound, and will be sold at \$1.50.

Controlling Sex in Generation is the title of a work about ready for press by Samuel H. Terry, who has devoted a great deal of time to careful observation and experience in this direction, and has prepared a book on a subject of very vital importance, both as devoted to the human and animal creation. This will be published early in November (price, \$1.00). We have also a new work on "Heredity," which, with other books, will be described in the next Number.

For Girls has now passed to the seventh edition, and is still meeting with increasing sales; is now being used in many schools for young ladies as a supplementary text-book. We have bound up a few copies as an examination edition in paper covers, which will be sent to teachers and school boards who desire to examine it with a view to introduction, at only 30 cents per copy; price, in cloth, \$1.00.

How to Keep a Store is already in the eighth edition, and selling rapidly. THE TEMPERAMENTS have been revised by the introduction of new and additional portraits, and the new edition is printed on fine, handsome paper, and ready for delivery. Price, \$1.50.

The Health Miscellany.—This is the title of an illustrated octavo pamphlet published at 25 cents. It contains a series of papers devoted to important health topics, opening with an excellent article on the External Senses, with illustrations of the eye, ear, nose, tongue, and skin, giving important information in regard to the functions and also the care of these important organs of the body. The next is an illustrated article on the Cause and Cure of the Backache, especially found among so many women. An extended article on Chronic Catarrh; points out its causes and the proper treatment. A chapter on Ethnology is illustrated with a number of portraits showing the races of men. A very important paper is one devoted to Bodily Positions and Dress in relation to health and form. The Teeth, their use and care, containing illustrations showing how the teeth are formed and grow, why and how they decay. The work also contains "Confessions and Observations of Sir Edward Bulwer-Lytton," originally published anonymously, under the title "Confessions of a Water-cure Patient," written in his peculiarly attractive style; is most entertaining and profitable reading. The Cause of Malarial Diseases is one which may be read profitably in almost every community. Getting Used to It shows how the system appears to get used to unhealthful habits. Fat Folks and Lean Folks shows how to treat these two conditions. Rheumatism is the subject of another article. We also have Medical Electricity; Position on Horseback; Trichina Spiralis; Hygienic Dwellings; Wheat, and the true way to use it; The Bath in Small-pox; etc.

The people need educating in this direction, and certainly no better use could be made of twenty-five cents than to send for this work.

How to Feed the Baby.—The author sends us the following letter for publication as evidence of the value of the methods recommended in his work:

"Provo, Utah, June 7, 1894.

"Dr. C. E. Page, 47 Rutland St., Boston:

"Dear Sir:—With regard to your system of diet as advised in 'How to Feed the Baby,' I have waited till I could with assurance say, 'I have triumphed.' I think I may do so now. Baby is quite the model baby. He is put down wide awake at 7 P.M. He never cries, is never rocked, and never nursed after the hour named, and he sleeps uninterruptedly till six or seven A.M., and is a vigorous, happy, healthy baby. All this has come about from the teachings in your precious little book 'How.' Certainly he, and all of us on his account, suffered severely for months prior to our adoption of your system of feeding. With many thanks for all the good you have done me and my baby, I remain
"Sincerely yours,
SUSA YOUNG GATES."

All parents and prospective parents should read this invaluable little work. Single pages of it are worth many times its cost.

Mr. J. R. Dodge, the statistician of the Department of Agriculture at Washington, has just prepared a work entitled "Farm and Factory: Aids to Agriculture from other Industries." It details the progress of twenty years, showing the advance in labor-saving inventions, and the great increase in farm productions. Dr. Dodge is a close student, a careful observer, and his book must have a decided value and exert a marked influence.

"**The Aegis**," published by Mrs. Quinby, at 124 West 23th Street, Cincinnati, is devoted to the interests of woman suffrage and woman's rights. It takes a bold stand on many of the questions of the day, and in its miscellaneous department contains much that is useful. It is published at \$1.00 a year.

The Beatty Organ and Piano Co.

—Mr. Daniel F. Beatty, of Washington, N. J., is well known as the manufacturer of musical instruments. Business reverses and other circumstances have prevented Mr. Beatty from continuing the business owing to financial embarrassments. His creditors have organized a stock company with the above name, and propose to continue the business with I. W. England president, and Mr. W. P. Hadwen manager. The office and factory are at Washington, N. J.

"**The Woman's Century**," the name of the monthly magazine published by Frank E. Housh, at Brattleboro, Vt., *Woman at Work*, has been changed to the above, and will maintain fully its character in all its departments. It will be found of interest to all ladies as well as to the general reader. It is published at \$1.00 a year, or sold at 10 cents per copy.

A Party for California.—We have just received a letter from Dr. D. C. Moore, of 1029 Market Street, San Francisco, Cal., informing us that he was to start on the 15th of September, with a party of excursionists for the East, and that he would return about the 15th of October, with a party of hygienists and reformers, who desire to go as settlers to a new colony in California. A circular giving full particulars mailed to us at the same time as his letter, has not been received, therefore we can not give any additional information, but a letter addressed to Dr. Moore, at Salem, Ohio, or in our care, will receive attention. We would say we have known Dr. Moore for a number of years, as an enterprising, thorough-going hygienist, and we can, in general terms, even without knowing further details, commend him to our readers.

All Interesting.—The following pleasant letter speaks for itself, and shows an appreciation of the merits of the JOURNAL.

KENTUCKY MILITARY INSTITUTE,

FARMDALE, KY.

FOWLER & WELLS Co.

GENTLEMEN: I receive the JOURNAL regularly every month, and am delighted with it. Every subject it touches seems to be just the one to interest and improve me; and on such subjects that, it seems to me, it would be the same with other people.

There is, to me, not an uninteresting department in it. I enjoy particularly the character-reading or analysis of character, that, with the accompanying portrait, is the first thing each month. Next to this the editorials engage my attention. They are always sensible, clear, interesting, and consider important and every-day subjects of thought. In short, the whole JOURNAL seems to me to be written by those who know the truth of what they write, and feel the importance of it too.

I hope soon to become better versed in the science of Phrenology, and then I shall read with still more appreciation.

Very truly yours,

JAMES CUMMINGS.

BUSINESS CARDS.

The Hammam, a Family Hotel, with Turkish Baths, 81 and 83 Columbia Heights, Brooklyn, N. Y. Three minutes' walk from Fulton Ferry.

Hygienic and Turkish Bath Institute and HOTEL, 13 & 15 Laight St., New York. M. L. Holbrook, M.D., Proprietor. Circular free.

Healds' Hygeian Home, Wilmington, Delaware. See advertisement. Send for circular. PUSKY and MARY H. HEALD, Physicians.

Kilbourn Hygienic Institute. Quiet Home and Skillful Treatment. Kilbourn City, Wis. DR. McELROY. Send for circular.

Invalids' Home. A Manual Labor Hygienic Institute. G. V. GIFFORD, M.D., Pro'r, Kakoma, Ind.

The New York Medical College and Hospital for Women, and Homeopathic Dispensary for Women and Children. 218 West 64th Street, New York.

Agents Wanted to sell our "GOOD BOOKS FOR ALL." Special terms given. Now is the time for agents to work. Send for Premium List. Address FOWLER & WELLS CO., 753 Broadway, New York.

Printing and Stereotyping.—EDWARD O. JENKINS' SONS. Book Printing a Specialty. Estimates promptly furnished. 20 North William St., N. Y.

Annie Smith, M.D., 154 E. 49th St., City.

ADVERTISEMENTS.

RATES FOR ADVERTISING.

One Full Page	\$75.00
One Half Page	40.00
Less than Half Page. 50 cts. a line, agate measure	
Second or Third Page of Cover, or First and	
Last Page of Inset	\$150.00
Last Inside Page	150.00
Fourth Page of Cover	Special Rates.
Business Cards	75 cts. a line.
Business (Reading Matter)	\$1.00 a line.

Advertisements must be sent in by the first of the month, to be in time for the month following. No extra charge for inserting cuts. No objectionable advertisements accepted at any price.

FOOD BETTER THAN MEDICINE

We provide vital, blood-making foods for all diseases. Sufferers from Dyspepsia, Constipation, Nervous Prostration, and Diabetes, should send for our free pamphlets.

HEALTH FOOD CO.,

74 Fourth Ave., New York,

Brooklyn office—9 Clinton Street.

Boston office—63 Commercial Street.

MOTHERS OR GIRLS should send address on a postal, for a copy of the Circulars to Mothers and Teachers, about our new book "FOR GIRLS." AGENTS WANTED. Address FOWLER & WELLS CO., Publishers, 753 Broadway, New York.

JAMES PYLE'S



PEARLINE

THE BEST THING KNOWN FOR

WASHING AND BLEACHING

IN HARD OR SOFT, HOT OR COLD WATER.

SAVES LABOR, TIME and SOAP AMAZINGLY, and gives universal satisfaction. No family, rich or poor should be without it.

Sold by all Grocers. **BEWARE** of imitations well designed to mislead. **PEARLINE** is the **ONLY SAFE** labor-saving compound, and always bears the above symbol, and name of **JAMES PYLE, NEW YORK.**

TO TEACHERS OF GIRLS.

We wish to call attention to our

Special Physiology for Girls,

a supplement to the study of general physiology, specially adapted to girls and schools. Illustrated. Extra cloth, price \$1.00. Examination copy in paper sent to teachers or school boards for 30 cents. Send for descriptive circular and full catalogue of books. Address

FOWLER & WELLS CO., Publishers,
753 Broadway, New York.

MEDICAL EDUCATION for

WOMEN

For College Announcement and full particulars, address **DR. GEO. C. PITZER,** No. 1110 Chambers Street, St. Louis, Mo.

FOR SALE OR RENT. One of the most Popular and Successful Sanitariums in the United States. Address Drs. P. & M. H. HEALD, Wilmington, Del.

HEALTH HAVEN, The Home of Hygienists and Reformers. Send stamp for circulars, to J. Wm. LLOYD, Tracy City, Tenn.

JUST PUBLISHED.

THE MAN WONDERFUL IN THE

House Beautiful.

An allegory. Teaching the principles of physiology and hygiene, and the effects of stimulants and narcotics. For home reading and schools. By Drs. C. B. and Mary A. Allen. Fully illus., 12mo, ex. clo., \$1.50. Unquestionably the most attractive work on the subject ever published. Examination copy in paper sent to teachers or school boards for 40 cents.

FOWLER & WELLS CO., Publishers,
753 Broadway, New York.

C. F. WELLS, NELSON SIZER, H. S. DRAYTON, ALBERT TURNER,
President. Vice-President. Secretary. Treas. and Bus. Manager.

FOWLER & WELLS CO.

On February 29, 1884, the FOWLER & WELLS CO. was incorporated under the laws of the State of New York as a Joint Stock Company, for the prosecution of the business heretofore carried on by the firm of FOWLER & WELLS.

The change of name involves no change in the nature and object of the business, or in its general management. All remittances should be made payable to the order of the

FOWLER & WELLS CO

The Subscription Price of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH is \$2.00 a year, payable in advance, or \$2.25 when premiums offered are sent to subscribers.

Money, when sent by mail, should be in the form of Money Orders, Postal Notes, Drafts on New York, or Registered Letters. All Postmasters are required to Register letters whenever requested to do so.

Silver or other coin should not be sent by mail, as it is almost sure to wear a hole in the envelope and be lost.

Postage-Stamps will be received for fractional parts of a dollar. These should never be stuck to the letters, and should always be sent in sheets; that is, not torn apart.

Change of post-office address can be made at any time by giving the old as well as the new address, but not without this information.

Letters of Inquiry requesting an answer should inclose stamp for return postage, and be sure and give name and full address every time you write.

All Letters should be addressed to Fowler & Wells Co., and not to any person connected with the office. In this way only can prompt and careful attention be secured.

Any Book, Periodical, Chart, etc., may be ordered from this office at Publishers' prices.

Agents Wanted for the PHRENOLOGICAL JOURNAL and our Book Publication. to whom liberal terms will be given.

Our Premium List, giving complete descriptions of the Premiums offered to subscribers, sent on application.

Our Descriptive Catalogues or our New List of "Books for Women" will be sent to any address on receipt of stamp for postage.

**FOWLER & WELLS CO., Publishers,
752 Broadway, New York.**

OUR NEW PREMIUMS FOR 1885.

A New Phrenological Chart.—

This is a handsome Symbolical Head made from new and special drawings, designed for the purpose, and handsomely lithographed. The pictorial illustrations show the location of the organs, and their natural language. It will help to readily locate the organs, and at the same time to give a correct idea of their functions. The Head is about twelve inches across, and lithographed in colors in the highest style of the art; printed upon paper about 19 x 24 inches, properly mounted for hanging on the wall, or can be handsomely framed and placed under glass when desired, and should be in every school-room, library, and home in the land.

It will be presented to each yearly subscriber to the JOURNAL, whether new or old. When it is sent by mail, we must receive 15 cents extra, to cover the cost of mailing this and postage on the JOURNAL, or we will send it by mail, post-paid, on receipt of price, \$1.60. This will be ready for delivery November 10th.

The Phrenological Bust.—This is one of the best possible aids to a proper understanding of the exact location of the phrenological organs. It is so lettered as to show them separately on one side, and in different groups, the moral, intellectual, executive, and social on the other side. It is handsomely made in white plaster and very ornamental. An ILLUSTRATED KEY accompanies each Bust, fully explaining it, and giving such directions as to enable the reader to understand its use, including the names and the functions of each of the faculties. When sent, 25 cents extra must be received for packing and boxing, and the large size (price, \$1.00) will be sent by express at the expense of the purchaser. No. 2, small size, will be sent by mail, post-paid. We offer a choice of either of the above premiums to subscribers for 1885.

A NEW OFFER.

All our Premium Offers to Subscribers except the above, will be withdrawn after November 1st, but we make the following very liberal proposition to present subscribers who will make an effort to secure additional names. To all who will send us their own and one new name, we will give one of the following books as a premium. Those who have already subscribed will be entitled to the premium Books by sending one new subscriber. Books on this offer must be selected from the following: "The Diseases of Mod-

ern Life," a work on the avoidable causes of disease. By Dr. B. W. Richardson. Price, \$1.50. "Expression: Its Anatomy and Philosophy." By Sir Charles Bell. Price, \$1.50. "The Reminiscences of Spurzheim and George Combe." By Hon. Nahum Capen, LL.D. Price, \$1.50. "The Constitution of Man." By George Combe. Price, \$1.50. "Wedlock; or, The Right Relation of the Sexes" By Samuel R. Wells. Price, \$1.50. "A Bachelor's Talks About Married Life." By Rev. William Aikman, D.D. Price, \$1.50. "How to Read Character." Price, \$1.25. Either of these books will be given to old subscriber who will send us one new subscription, and the Phrenological Chart or Phrenological Bust will be given to the new subscriber.

Words of Approval.—A lady, in writing for books, says: "What we know of phrenology has been very beneficial in many ways. We have several of your splendid books, and want more as soon as we can get them. Dr. Page's book on 'How to Feed the Baby' has been worth its weight in gold to us; our baby had to be weaned when three months old, on account of my health, and she would not be with us now had it not been for my having this work. Having never before learned anything on the subject, I should have been giving my baby a bottle of milk whenever it worried, as all mothers do who have not learned different; and as she was a delicate child, we know now what would have been the result. She has lived now under Dr. Page's rules for ten months; is never sick, always well and happy, and has been cutting teeth without any of the trouble common to babies while teething. My sister has raised two children in the same way, with the same happy result. We have loaned the book to mothers to read and profit by, but they say there is not much in books, but do as their mothers did, and lose their babies, then say: 'It was too good for this world.' The only reason they are taken away, is because those that have the care of the little ones know nothing of Nature's laws, and will not learn from those who have made a study of the subject.

"Yours for light and truth,

"Mrs. NORA E. TERRELL."

Agents Wanted.—We desire the services of active, energetic persons in every neighborhood, to introduce and sell our publications. Our books should be found in every household, and energetic agents can nearly always meet with success in taking orders, especially for some of our recent works. Our new book, "The Man Wonderful in the House Beautiful," should be found in the home of every family especially where there are children and young people, and it can nearly always be sold in such cases. It is attractive, popular, and useful. Other agents do well in selling "New Physiognomy," and the higher-priced books. Our terms will be sent on application.

B. F. Pratt, M.D., a graduate of the American Institute of Phrenology, has arranged for an extended professional tour under the management of Mr. Charles Benton, who has been very successful in the management of other lecturers and entertainments. They expect to commence about the middle of November, in Ohio, and to visit during the season a number of the large cities of the South and West. They will take subscriptions to the JOURNAL and sell our publications.

"**Man Wonderful**."—This book is meeting with a most hearty reception. The press almost universally praise it, and the people are reading it with eagerness and with interest. It is likely to be very widely circulated, both as a school text-book and for home reading. It should, in fact, be in every library, public and private. To show something of the opinions expressed in regard to it, we copy a few of the

NOTICES OF THE PRESS.

"Teaching by allegory is not new, but it has never been applied more skillfully than here, where life is depicted as the 'Man Wonderful' occupying the body, otherwise the 'House Beautiful.' If it does not meet the requirements of a method to make the subject of physiology and hygiene in some degree, at least, popular, the task might be as well abandoned."—*Morning Herald* (Rochester, N. Y.)

"If the good people who distribute tracts to the poor would throw in along with them some copies of this little book, they would be doing a great service to the cause of religion in this world certainly. Whatever saves the body helps the soul."—*Truth*.

"The charming style in which it is written, its simplicity, and its fertility of illustration can not fail to interest the dullest child, while the scientific knowledge of the authors is comprehensive and exact."—*Boston Traveller*.

"We recommend this book heartily. It can not fail to do good. The young should read it by all means. So should parents and teachers."—*Advocate and Guardian* (N. Y.)

"The book is more wonderful than a fairy tale, more intensely interesting than a romance, and more replete with valuable truths than any book of the present day."—*Indianapolis Times*.

"Teachers who find it difficult to interest pupils in the study of physiology with the ordinary text-books, would do well to give this novel method of instruction an examination."—*Detroit Post* (Detroit, Mich.)

"It is emphatically a useful book, and it should meet with the warmest favor at the hands of parents, teachers, and all others interested in the dissemination of sound hygienic principles."—*Herald* (Syracuse, N. Y.)

"The book is worthy of careful reading as an addition to the household library, and we have little doubt will prove a most acceptable text-book, despite the fact that its novel mode of presentation is so diametrically opposed to the ancient methods which school-book writers and school authorities almost universally affect."—*American Reformer* (N. Y.)

"This is an admirable treatise for the young upon the subjects of physiology and the laws of health, written in a pleasing style, and is easy of comprehension, and must commend itself to instructors, and the reading public generally."—*Savannah Daily Times*.

"It was said of old, 'We are fearfully and wonderfully made.' But let any boy or girl—or, for that matter, almost any grown person—read this book and study its pictures and its interesting story, telling how the various functions of the body are performed, and the result must be an increased feeling of respect and admiration for Nature's wonderful work and a new sense of the importance of more care and attention to our ways of eating and drinking, and of living generally."—*Hartford Daily Times*.

Three Visits to America.—Emily Faithfull's new work, entitled "Three Visits to America," is now ready. It is unlike all other books of travel, and rather a record of her observation of our people, institutions, etc., than an account of the country. To show something of the nature of the work, we copy from her

PREFACE.

"I do not pretend to offer any new information about a country respecting which so much has been already written by abler pens than mine, but this addition to the international literature of the day may still perhaps prove acceptable, as 'the point of view' taken differs from that of the ordinary traveller.

"Throughout my three visits I had one object specially before me, namely, to supplement the experience gained during twenty years of practical work in England, in regard to the changed position of women in the nineteenth century, by ascertaining how America is trying to solve the most delicate and difficult problem presented by modern civilization. In the hope that the information thus obtained may prove useful, I venture to offer this volume to the English and American public, and I sincerely trust that no comments in these pages, upon political matters or social customs, will prove offensive to a country which extended to me such generous hospitality, and for which I entertain a profound and affectionate respect.

"EMILY FAITHFULL.

"19 Learmonth Terrace, Edinburgh."

"It is a work which should be of interest to all reformers. By special arrangement with the author, it is published simultaneously here and in London.

Sunday-school Teachers will be specially interested in our new book now in press, entitled "Children of the Bible." In this work the author, Miss Fanny L. Armstrong, takes up each child referred to in the Bible and weaves their lives into a pleasant, graphic tale, and it will furnish themes for much useful instruction to classes. Agents can do well in selling it. We want active, energetic persons to canvass churches, Sunday-schools, etc.

The Class of 1884.—The session of the American Institute of Phrenology, for 1884, opens just as we are going to press with this Number of the JOURNAL, consisting of a large class of very intelligent ladies and gentlemen who manifest an earnest interest in the subject. There is an increasing demand from all parts of the country for the services of intelligent and educated persons in the lecture field, and for professional work. It is the aim of the American Institute of Phrenology to prepare its graduates for this field as well as to impart instruction that will be found useful in the various walks of life. Full particulars in regard to the course will be sent on application to this office.

The Prairie Farmer.—This is an excellent periodical published in Chicago, Ill., and is now under the business management of Mr. Orange Judd, who for many years was the editor of the *American Agriculturist*. It is published at \$2.00 a year, clubbed with the JOURNAL at \$3.25, and the balance of this year is sent free to their new subscribers.

We have recently imported from London, and added to our cabinet, a very interesting set of casts. The following description received with them is sufficiently explanatory: "The Hillings family. The idiots numbered 1, 2, 3, 4, and 5, are the offspring of idiot number 6. Number 6, the mother, was originally a constant inmate of Beccles Workhouse, in Suffolk. The father, who would not submit to have his cast taken, was a jobbing carpenter, and obtained employment as such nine months out of the twelve, thereby earning more than sufficient to keep him whilst unemployed; but being partially idiotic and incapable of taking care of his earnings, he also became an inmate of the said workhouse the remaining portion of the year. Here an attachment took place between him and number 6, which was encouraged by the authorities under the false idea that it would be the means of reducing the expenses of the parish, but the result was—idiot number 1, idiot number 2, idiot number 3, idiot number 4, idiot number 5—neither of which had brain enough to earn its own subsistence." This teaches a very important lesson in "Heredity." The casts have already been examined by many people who are interested, and our readers are invited to come and see them, as well as the hundreds of other interesting busts, portraits, etc., we have on exhibition.

Educational.—We take pleasure in calling the attention of our readers to the West End School, for young ladies and children, No. 8 West 98d Street, in this city. This school is in charge of Mrs. Reynolds as principal, with the Art Department under the direction of Miss M. A. E. Carter. Special attention is given to health and hygiene, and circulars giving full particulars will be sent on application as above.

For Girls.—Miss L. B., in sending for a copy of this book, says: "I have read and re-read the book. I borrowed one, and now want one of my own. I wish that every girl in the land might have the opportunity of reading it." This is the testimony of many who have read the book. Agents wanted to sell this everywhere.

Words of Approval.—The following speaks for itself. The writer is a member of the law firm of Windsor & Harrison:

"FOWLER & WELLS Co., 758 Broadway, N. Y.

"GENTLEMEN: I beg to acknowledge receipt of the 'Student's Set' of books, as well as the October Number of the PHRENOLOGICAL JOURNAL, and the premium, 'Diseases of Modern Life.'

"I have had these books long enough to make a thorough examination of them, and must say that I am delighted. 'Wells' Physiognomy' is a jewel among books, and worth many times the price of the whole set, in point of valuable information. The JOURNAL is an old friend. I have been buying it from the news-stands, but concluded this year to go to headquarters.

"I never lose an opportunity to recommend your books and your House to my friends who are seeking valuable information.

"With great regard, I am, fraternally,

"WM. WINDSOR, JR.

"GAINESVILLE, TEXAS, Sep. 29, 1884."

Patterns of your own selection, and of any size, given with every Number of Democrat's Monthly. See advertisement.

The Face Indicative of Character.

—This is the title of a work just published by Mr. L. N. Fowler, in London. It is illustrated by 120 portraits and figures; discusses the temperaments, the facial poles, with general principles, and includes the pamphlets, "The Nose," "Mouth and Lips," "Eyes and Eyebrows," which have been published separately. It is sold at this office, at 80 cents, and will be sent by mail, post-paid, on receipt of this amount. We feel certain our readers will all be interested in it.

CLUBBING FOR 1885.

For the accommodation of our readers and friends we have made arrangements for the combining of other publications with our popular and useful magazine as follows: The subscription price of the **PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH** is \$2; and any of the following may be included at the prices given:

Names sent for the **JOURNAL**, with either of these, will count on Premium List, and to Agents the same as though sent singly.

English Illus. Mag.	\$1 50	Observer, new sub.	2 25
Eclectic Magazine	4 25	The Beacon	1 70
Atlantic Monthly	8 40	Phonetic Journal	1 85
Lippincott's Mag.	2 50	The Paney	70
Harper's Monthly	3 10	Baby Land	40
" Weekly	3 35	Peterson's Lady's Mag.	1 60
" Bazar	3 35	North Am. Review	4 25
" Young People	1 70	Tribune, Weekly	1 10
The Century Magazine	8 60	" Semi-Weekly	2 25
St. Nicholas	2 70	Times, Weekly	90
Popular Sci. Monthly	4 20	Sun, "	90
Godey's Lady's Book	1 70	World, "	90
Arthur's Home Mag.	1 60	Country Gentleman	2 15
Rural New Yorker	1 85	Herald, Weekly	90
Scientific American	2 75	Prairie Farmer	1 80
" Supplement	4 20	Illus. Christ'n Weekly	2 20
Demorest's Magazine	1 60	Every Other Saturday	2 10
Home Journal	1 60	Weekly Witness	90
American Agriculturist	1 10	Poultry World	90
Wide Awake	2 50	Gardener's Monthly	1 50
Our Little Men and		Herald of Health	80
Women	75	N. E. Jour. Educa.	3 40
Our Little Ones	1 25	The School Journal	1 60
Critic and Good Lit.	2 50	Plymouth Pulpit	1 75
Chr. Intelligencer, new	2 00	Christian Union	2 50
The Independent	2 60	Christian at Work	2 60

The only condition for obtaining the above reduction is that the person ordering shall subscribe for or be a subscriber to the **PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH**, then any number of the above publications may be ordered. Chart and Bust Premiums are offered to subscribers to the **JOURNAL** as above. Make up your list and send on the amount, saving time, money, risk, and trouble. Agents can often offer the above combination to advantage. Address all orders to **FOWLER & WELLS Co.**, Publishers, 753 Broadway, N. Y.

Godey's Lady's Book.—This old and well-known magazine, published in Philadelphia, is making itself attractive to lady readers by its contents, and also offers to send with each Number a coupon order, entitling each subscriber to a patent pattern every month, together with a steel-engraving premium. We club it with the **PHRENOLOGICAL JOURNAL**, at \$3.65 a year.

McComber's Boots and Shoes.—We wish to call the attention of our readers to the advertisement of Mr. Joel McComber, in this Number. We have worn the foot covering made by Mr. McComber, and know by experience of their value. Our readers will, all of them, be interested and benefited by sending for and reading his new circulars. His prices are greatly reduced.

BUSINESS CARDS.

The Hammam, a Family Hotel, with Turkish Baths, 81 and 83 Columbia Heights, Brooklyn, N. Y. Three minutes' walk from Fulton Ferry.

Hygienic and Turkish Bath Institute and HOTEL, 18 & 15 Light St., New York. M. L. Holbrook, M.D., Proprietor. Circular free.

Healds' Hygeian Home, Wilmington, Delaware. See advertisement. Send for circular. **PERRY** and **MARY H. HEALD**, Physicians.

Kilbourn Hygienic Institute. Quiet Home and Skillful Treatment. Kilbourn City, Wis. **Dr. McELROY.** Send for circular.

Invalids' Home. A Manual Labor Hygienic Institute. **G. V. GIFFORD, M.D., Pro'r, Kakoma, Ind.**

The New York Medical College and HOSPITAL FOR WOMEN, and Homeopathic Dispensary for Women and Children. 218 West 64th Street, New York.

Agents Wanted to sell our "GOOD BOOKS FOR ALL." Special terms given. Now is the time for agents to work. Send for Premium List. Address **FOWLER & WELLS CO., 753 Broadway, New York.**

Printing and Stereotyping.—**EDWARD O. JENKINS' SONS.** Book Printing a Specialty. Estimates promptly furnished. 20 North William St., N. Y.

Annie Smith, M.D., 154 E. 49th St., City.

ADVERTISEMENTS.

RATES FOR ADVERTISING.

One Full Page	\$75.00
One Half Page	40.00
Less than Half Page50 cts. a line, agate measure.
Second or Third Page of Cover, or First and Last Page of Inset	\$150.00
Last Inside Page	150.00
Fourth Page of Cover	Special Rates.
Business Cards75 cts. a line.
Business (Reading Matter)	\$1.00 a line.

Advertisements must be sent in by the first of the month, to be in time for the month following. No extra charge for inserting cuts. No objectionable advertisements accepted at any price.

FOOD BETTER THAN MEDICINE

We provide vital, blood-making foods for all diseases. Sufferers from Dyspepsia, Constipation, Nervous Prostration, and Diabetes, should send for our free pamphlets.

HEALTH FOOD CO.,

74 Fourth Ave., New York,

Brooklyn office—3 Clinton Street.
Boston office—63 Commercial Street.

MOTHERS OF GIRLS should send address Circulars to Mothers and Teachers, about our new book "FOR GIRLS." **AGENTS WANTED.** Address **FOWLER & WELLS Co., Publishers, 753 Broadway, New York.**

C. F. WELLS, NELSON SIZER,* H. S. DRAYTON, ALBERT TURNER,
President. Vice-President. Secretary. Treas. and Bus. Manager.

FOWLER & WELLS CO.

On February 20, 1884, the FOWLER & WELLS CO. was incorporated under the laws of the State of New York as a Joint Stock Company, for the prosecution of the business heretofore carried on by the firm of FOWLER & WELLS.

The change of name involves no change in the nature and object of the business, or in its general management. All remittances should be made payable to the order of the

FOWLER & WELLS CO.

The Subscription Price of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH is \$2.00 a year, payable in advance, or \$2.25 when premiums offered are sent to subscribers.

Money, when sent by mail, should be in the form of Money Orders, Postal Notes, Drafts on New York, or Registered Letters. All Postmasters are required to Register letters whenever requested to do so.

Silver or other coin should not be sent by mail, as it is almost sure to wear a hole in the envelope and be lost.

Postage-Stamps will be received for fractional parts of a dollar. These should never be stuck to the letters, and should always be sent in sheets; that is, not torn apart.

Change of post-office address can be made at any time by giving the old as well as the new address, but not without this information.

Letters of Inquiry requesting an answer should inclose stamp for return postage, and be sure and give name and full address every time you write.

All Letters should be addressed to Fowler & Wells Co., and not to any person connected with the office. In this way only can prompt and careful attention be secured.

Any Book, Periodical, Chart, etc., may be ordered from this office at Publishers' prices.

Agents Wanted for the PHRENOLOGICAL JOURNAL and our Book Publications, to whom liberal terms will be given.

Our Premium List, giving complete descriptions of the Premiums offered to subscribers, sent on application.

Our Descriptive Catalogues or our New List of "Books for Women" will be sent to any address on receipt of stamp for postage.

FOWLER & WELLS CO., Publishers,
753 Broadway, New York.

Our New Chart Premium.—As we write this, our new Phrenological Chart Premium is being printed, and we can see just what it is to be, and can safely say, it is by far the most attractive thing of the kind ever made. It is on fine plate paper, handsomely colored and lithographed in the finest style of the art. It will be sure to be acceptable. As stated in the last Number of the JOURNAL, the Head is about twelve inches across, printed on paper 19 x 23 inches, showing the location of the faculties and their natural language or functions, and giving names and definitions; properly mounted, with rings, ready to hang up, it is worthy of a frame and a place on the wall of every home, office, and library, and should especially be found in the school-rooms of the land. It is offered free at this office, to every subscriber to the PHRENOLOGICAL JOURNAL for 1885. When sent by mail, we must receive 15 cents extra.

The PHRENOLOGICAL BUST will be given to those who prefer this to the Chart described above. This is of plaster of Paris, somewhat less than life size, and so numbered and lettered as to show the location of the organs. We have sent out many thousands of these, and they are undoubtedly the best possible aid to the study of phrenology. Each Bust is accompanied with an Illustrated Key and should be in the hands of all who would know how to read character. We must receive 15 cents extra from each subscriber, as these must be boxed. The large size is sent at the expense of the purchaser. The small size will be sent by mail, post-paid. These premium offers take the place of all offered before, and the Book Premiums are NOW WITHDRAWN. SPECIAL PREMIUMS TO PRESENT SUBSCRIBERS. While our Book Premium offers are withdrawn, we still place the books within easy reach of our subscribers, by making a special offer to present subscribers who send us one new name. Full particulars of this will be found on another page, and the offer is open to all whose names are entered on our books for the coming year. If you are not already a subscriber, the books can be secured by sending one new name with your own.

For the January, 1885, Number of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH we have in preparation: The Semi-Centennial Year of the establishment of the Phrenological office and business in New York; A History of the Work done by the Fowlers, Samuel R. Wells, and their eminent associates, with many portraits, including those of the editors of the PHRENOLOGICAL JOURNAL; also, A Description of the Great Exhibition or Cotton Centennial of New Orleans, with illustrations; Phenomena of Immortality; Poets and Poetry, an essay descriptive and critical; Reform in Men's Dress; Character in Canes; and a variety of other matter of seasonable interest relating to social, moral, hygienic, and other relations.

Bequests Wanted.—We are very frequently in receipt of letters from persons desiring to secure our publications at low prices: persons who assure us that they are so poor that they can not afford to pay, and ask us if we can not donate. Many others want books for various kinds of libraries. Now, we should be glad to respond to all of these demands, but can not. We must have money with which to carry on the work; the expense for office rent, printing, etc., is great, and these bills must be paid from receipts. This opens a grand missionary field for people wishing to do good. We are willing to supply books for distribution at cost, and a comparatively small amount of money will go a great ways. \$100.00, spent in this way, would exert a lasting influence: even \$25.00, \$10.00, or \$5.00, would be the means of doing much good. If persons who are disposed to help on the work either in the direction of extending a knowledge of phrenology or the influence of health reform, will place in our hands money to be spent, we will see that it is properly applied. You may designate what book you wish to circulate, and what class of people you wish to read it, and we will see that your suggestions and instructions are followed. Who will respond to this call, and start a missionary fund for the distribution of this kind of literature? Our books are opened for an account for which we will give a careful rendering. May we not have the influence of each reader in securing an interest in this work?

"Best Things from Best Authors."

—Volume IV. This contains Nos. 10, 11, and 12 "Elocutionist's Annual," designed for social and public entertainments, and for use in schools and colleges. It is published in Philadelphia, by the National School of Oratory, and it contains the latest and best productions of the most popular English and American writers, covering the whole range, humorous, pathetic, dramatic, etc., and will be found attractive for home, school exhibitions, and the whole round of holiday amusements. The amateur will be delighted with it, and it contains much that will be attractive to the professional elocutionist. We can recommend it to all interested as one of the best possible sources of entertainment. The volume contains 600 pages, handsomely bound in cloth, and sold at \$1.00.

A Grand Combination.—Knowing that a large number of our readers are interested in agricultural, horticultural, and floricultural subjects, we have taken pains to make a clubbing arrangement with one of the best papers devoted to this subject. And we call their special attention to the grand combination offer on another page, in which the PHRENOLOGICAL JOURNAL and premiums for 1885 and the *Rural New-Yorker* with its seed distribution premiums for 1885, are offered at a specially low price. The *Rural New-Yorker* has been before the reading world for many years; and while its name implies a locality, it is adapted for circulation in all parts of the country. It is thoroughly independent and fearless in its discussion of rural topics, and through its experimental farm it offers to its readers much that is valuable in regard to the results to be arrived at from the testing of new varieties and special fertilizers. It is now publishing a series of very important papers under the general title of "Rural Prize Essays." These are essays or papers by practical writers on all kinds of farm subjects, including stock raising, of all kinds of crops, best plans for building, etc., etc. In addition to the attractiveness of the *Rural* itself, it offers eight packages of rare seeds, including that which may be very important: the results of the crossing of a large number of kinds of Indian corn, procured from different parts of the country. There are new pease, beans, tomatoes, and a new forage plant. All these are described in the announcement referred to, on another page, and are offered together at the low price of \$3.50. This will undoubtedly prove a great inducement. Those desiring sample copies of the *Rural* can obtain the same free from the office of the *Rural New-Yorker*, 34 Park Row, New York. All subscriptions should be sent to this office.

The Ideal Pen.—There have been during the past few years, a large number of fountain-pencils, etc., introduced. Some of these have answered a good purpose, and given fair satisfaction; some have proved complicated, and easily get out of order: some would not shade the writing, and were practically a pencil writing with ink; but improvements have been made, and now we have what is known as the "Waterman Ideal Fountain Pen," which seems to us to be better than anything we have yet seen, and as near perfection as possible. We have had them in use in this office for some time, both for ordinary writing and for shorthand work, and have found them to be in every way satisfactory. We would call the attention of our readers to a full description published on another page, and our very liberal offer. A little effort on the part of our readers would secure for themselves one of these pens (always ready, and always useful), and at the same time result in largely increasing the circulation of the JOURNAL. By this means you will do a favor to yourselves and a favor to the publishers, and that which will be of lasting benefit to him whom you have induced to subscribe. Read our advertisement, and give the matter a trial at once. If you do not want the pen for your own use, you can secure nothing better for a holiday present. We can send a more complete descriptive circular on application.

NOTES ON OUR PUBLICATIONS.

BOOKS FOR THE HOLIDAYS.

It is an accepted fact that nearly always there is no more appropriate holiday gift than a good book. When a proper selection is made its influence is far-reaching, and it will be found, in many cases, hard to measure; and the giver has a wide range for selection, and can well adapt the book given to the taste or needs of the receiver. It is not necessary in order that a book shall be appropriate and acceptable, that it be especially illustrated and bound; the merit must be measured by the character and quality of its contents, as related to the person to whom it is to be given. And, in this connection, we will call the attention to our list of publications. While our books are not especially gotten up for the holiday trade, they are still very acceptable. Among our recent books, we would mention first,

Three Visits to America (price, \$1.50). By Miss Emily Faithfull. This is very handsomely published and bound. A large volume of 400 pages, and printed on fine paper. It is in every way appropriate and sure to prove acceptable and interesting to all. Miss Faithfull has the faculty of saying things in a way that people like to read them, even if it is criticism. The book is just out, and is receiving praise from all directions.

The *Brooklyn Magazine* says: "Numerous as have been the recent works descriptive of our country, the habits and characteristics of 'we Yankees,' in no volume have we been better portrayed nor with a keener or more observant eye than in the new volume of Miss Emily Faithfull's 'Three Visits to America.' Perhaps one of the most charming features of Miss Faithfull's excellent work is her gossiping comparisons of our social mannerisms with those of our British cousins. While we are flattered, it is clear that the author has not done so intentionally. She has, at the same time, not allowed our imperfections to escape her, yet these she brings out with a subdued light. Under the touch of that rare genius which the author possesses, she has given to Americans the grandest and most beautiful description of their country yet published, and this part of her volume would in itself insure for her book that large success which it will unquestionably meet with. It is a delightful work, and worthy of its talented author."

The Man Wonderful in the House Beautiful (price, \$1.50,) is one of our special books, and would be most acceptable to children and young people who require instruction in the fundamental principles in physiology and hygiene. It has all the attractiveness of a fairy tale, and will be read eagerly; and, indeed, prove interesting to the majority of grown people.

The Children of the Bible. By Miss Armstrong (price, \$1.00). Especially adapted to the wants of young people, and at the same time one that can be read profitably by all, and should be in the hands of Sunday-school teachers and those who have to do with children. The story of each child mentioned in the Bible is told in a connected and graphic way that secures the attention. The work has a stirring introduction by Frances E. Willard. It is a good book for Sunday-school libraries.

A Bachelor's Talks About Married Life AND THINGS ADJACENT (price, \$1.50; full gilt, \$2.00). By Rev. William Aikman. This is one of the most sensible, readable, and instructive books ever published on social life. It is a work especially adapted to young people that are married, or expecting to be, and it would help oftentimes to steer clear of quicksands and breakers. It is safe to give it always, and it will be sure to be read. It is published in an attractive manner, and handsomely bound.

Life at Home (price, \$1.50; full gilt, \$2.00,) is by the author of "Bachelor's Talks." An old and standard work. We presume more copies of it have been given as wedding presents, than almost any other work. Many clergymen keep copies of it on hand for this purpose. The new edition is published uniform with "Bachelor's Talks."

Choice of Pursuits (price, \$1.75). This, perhaps, is a book more especially for boys and young men, but simply because they more frequently discuss the question of "What can I do best?" Mr. Sizer describes the qualifications necessary for seventy-five different trades and professions, which are fully discussed, and the portraits and biographies of a number of successful men and women are given. It will be found not only interesting but profitable to the young and useful to parents.

How to Teach (price, \$1.50) is also by Mr. Sizer, in which he makes an application of phrenology to the training of the young, and parents and teachers who would make the most of the capabilities of their children should have this book for consultation.

Forty Years in Phrenology (price, \$1.50). This might be called an autobiography of a Phrenologist, for in it Mr. Sizer sketches his experience and reminiscences. Readers of the *JOURNAL* will all prize this.

New Physiognomy (price, in cloth, \$5.00; full gilt, \$6.00; heavy calf, \$8.00; morocco, gilt edges, \$10.00,) is a royal book, and when a grand, good book is being sought for, this should be considered. It contains more than a thousand portraits and other illustrations, and is really a great album of portraits and biographies, and each picture is significant, showing its indication as related to character.

The Emphatic Diaglott (price, \$4.00 in fine black cloth, and \$5.00 library binding). This work contains an interlinear word for word English translation of the Greek New Testament, and will be acceptable to Bible students, especially so to your pastor and Sunday-school teachers.

Health in the Household (either in cloth or oil-cloth binding, price, \$2.00). This is the most comprehensive cook-book ever published, taking into consideration the healthful preparation of food, and if all mothers knew how much better they could feed their children with the same amount of work and often with the same materials by having the knowledge contained in this volume, it would have a very wide sale. You can not afford not to have it in the household.

For Mothers and Daughters (price, \$1.50). This work by Mrs. Dr. Cook on health and hygiene for women, should be given by every husband to his wife, and placed in the hands of his grown-up daughters. Its knowledge would be found more valuable than pearls and jewels.

Brain and Mind (price, \$1.50). Here is a work which will prove of interest to all who desire a thorough technical knowledge of phrenology. Teachers and all professional people would find it of interest.

For Girls.—*The Little Christian*, published by H. L. Hastings, Boston, says: "Health, happiness, and life are wrecked through the ignorance of young girls of themselves, of their rights, and their capabilities. That the girlhood and womanhood of our country may be improved, made intelligent, this lady author has written a plain talk for girls. It is a mother-talk to daughters, from one who has the wisdom of mother and physician combined. It should be in every family, for the questions discussed are treated with such delicacy and freedom from all false modesty, that none can get wrong impressions. While written for girls, and discussing the special physiological features of their bodies, it will not hurt the boys to read it. No youth of either sex should be ignorant of the facts contained in this volume, as interesting in style as a delightful story, and yet containing important information that may save the reader a world of sickness and suffering." This is only a sample of the praise that is continually bestowed on this work. Agents do well in selling it both for themselves and the persons to whom it is sold. Sent by mail, post-paid, on receipt of price, \$1.00.

We have many special books which will be found desirable in special cases, and the readers of the *PHRENOLOGICAL JOURNAL* should send for our new descriptive catalogue.

Teaching and Teachers; or, *The Sunday-school Teacher's Teaching Work, and the Other Work of the Sunday-school Teacher.* By H. Clay Trumbull, D.D. Dr. Trumbull is the editor of the *Sunday-school Times*, unquestionably the ablest paper published in the interest of Sunday-school work, and the editor is, of all men, the best fitted to write a book on this subject. The volume discusses Sunday-school teachers' work in all its phases. It takes up teaching, its nature, its essentials, and its elements, together with its method. It should be in the hands of every Sunday-school teacher who would meet with the highest degree of success. The book is published by John B. Wattles, Philadelphia, Pa., and sells for \$1.50.

Horses' Age.—*How to Tell the Age of a Horse:* A pocket manual, giving full information of the methods employed by professional men and veterinarians to determine the age of horses, with names and illustrations, showing the shape of teeth; different ages, and a chapter on horse character, or how to determine the disposition of a horse, with portraits of several famous trotters and thorough-breds, by Professor J. M. Heard. This is the title in full of a work published by Mr. M. T. Richardson, of this city, which we can send to any address by mail, post-paid, on receipt of price, 80 cents.

Goff's Handbook for Ready Reference for Advertisers.—This contains information which will be found very useful to all general advertisers; to men who are doing a large business in many papers. Mr. Goff is a successful advertising agent. His address is 150 Nassau Street, this city.

Our Premium Offers.—In this Number of the *JOURNAL* will be found some of our new premium offers for clubs of subscribers for 1895. We are making some new and very attractive offers. Our offer of the "Waterbury Watch" is one of these. This new, low-priced watch has been made sufficiently long to be thoroughly tested and to have established its excellence. It is certainly remarkable that so good a time-keeper in the form of a watch can be offered at so low a price. Every boy, every laboring man, everybody can now afford to have with them a reliable time-piece, leaving no excuse for tardiness or waste of time. Read our special offer.

Among the household necessities are suitable scales for weighing various articles purchased and used. These have been costly, and many cheap but poor articles have been offered, but we believe now we have arranged for the offering of really excellent scales at low prices.

"The Collacon."—This is the name given to an encyclopedia of 40,000 prose quotations from 8,000 authors, upon 2,000 different topics. A work of this kind is always attractive, and a never-failing source of information and entertainment. It must necessarily be large to be useful, and the book under consideration (Day's Collacon) is certainly the most comprehensive ever published. We have arranged for the offering of this as a premium, believing it would meet the desires of a large number of our subscribers. Our Table of Premiums presents a greater variety than ever before, and some of the best offers we have ever made.

The Home Exerciser.—There have been many devices offered to the public in the form of exercisers, health-lifts, home gymnasiums, lung strengtheners, etc., all having some degree of merit, but none of them without some possible objection. We now have something new, called "THE HOME EXERCISER," and we do not hesitate to say we believe it to be the best home gymnasium ever devised. It consists of a system of light weights and pulleys, making it impossible to over-lift, and the results can not, in any way, prove injurious. It is easily put up, occupies but little room, never being in the way. We have made arrangements for the introduction of this, and wishing to have it known and appreciated at once, in all parts of the country, we are making a specially liberal offer. The price is \$8.00, and for five subscribers to the *JOURNAL* it will be given as a premium. Persons who can not make up a club can obtain the gymnasium and the *JOURNAL* for three years, by sending \$10.00. It is accompanied with a complete manual of instructions, giving valuable suggestions on health topics. Read the advertisement on another page, and send for our complete descriptive circular, with testimonials, etc.

The American Newspaper Annual, containing a catalogue of American newspapers, carefully arranged and classified, is published by N. W. Ayer & Son, Philadelphia, Pa. The political and general proclivities of each paper is given, as also price for advertising, making it indispensable to all large advertisers.

The Beatty Organ Co.—The name of Daniel F. Beatty, Washington, N. J., was well known to our subscribers on account of his advertising in connection with the sale of musical instruments, and he had built up a most extensive business in organs and pianos. Mr. Beatty was a pushing man and met with great success; but on account of heavy losses in a fire in 1881, and want of judicious business management, his affairs became so seriously involved that he finally disposed of his business to a corporation composed of his creditors. It is understood that this company have undertaken to make good, so far as possible, all of the obligations of Mr. Beatty. The company is under the presidency of Mr. I. W. England, the business manager being W. P. Hadwen. We are assured that all new orders are filled promptly; and while arrangements are being manufactured and shipped as rapidly as possible, on such a basis, supplying a superior article at a moderate price, the new concern ought to achieve great success.

CLUBBING FOR 1885.

For the accommodation of our readers and friends we have made arrangements for the combining of other publications with our popular and useful magazine as follows: The subscription price of the **PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH** is \$2; and any of the following may be included at the prices given:

Names sent for the **JOURNAL**, with either of these, will count on Premium List, and to Agents the same as though sent singly.

English Illus. Mag.	\$1 50	Observer, new sub.	2 25
Eclectic Magazine	4 25	The Beacon.	1 70
Atlantic Monthly	3 40	Phonetic Journal	1 35
Lippincott's Mag.	2 50	The Pansy.	70
Harver's Monthly	3 10	Baby Land.	40
" Weekly	3 35	Peterson's Lady's Mag 1	60
" Bazar	3 35	North Am. Review.	4 25
" Young People	1 70	Tribune, Weekly.	1 10
The Century Magazine	8 60	" Semi-Weekly	2 25
St. Nicholas.	2 70	Times, Weekly.	90
Popular Sci. Monthly	4 20	Sun, "	90
Godey's Lady's Book	1 70	World, "	90
Arthur's Home Mag. . .	1 60	Country Gentleman. . .	2 15
Rural New Yorker . . .	1 85	Herald, Weekly.	90
Scientific American. . .	2 75	Prairie Farmer.	1 30
" Supplement.	4 20	Illus. Christ'n Weekly	2 20
Demorest's Magazine. .	1 60	Every Other Saturday.	2 10
Home Journal.	1 60	Weekly Witness.	90
American Agriculturist	1 10	Poultry World.	90
Wide Awake.	2 50	Gardeners' Monthly. .	1 50
Our Little Men and		Herald of Health.	80
Women.	75	N. E. Jour. Educa. . .	2 40
Our Little Ones.	1 25	The School Journal. . .	1 60
Critic and Good Lit. . .	2 50	Plymouth Pulpit.	1 75
Chr. Intelligencer, new	2 60	Christian Union.	2 50
The Independent.	2 60	Christian at Work . . .	2 60

The only condition for obtaining the above reduction is that the person ordering shall subscribe for or be a subscriber to the **PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH**, then any number of the above publications may be ordered. Chart and Bust Premiums are offered to subscribers to the **JOURNAL** as above. Make up your list and send on the amount, saving time, money, risk, and trouble. Agents can often offer the above combination to advantage. Address all orders to **FOWLER & WELLS Co., Publishers, 753 Broadway, N. Y.**

McComber's Boots and Shoes.—

We have worn the foot covering made by Mr. McComber, and know by experience of their value. Our readers will, all of them, be interested and benefitted by sending for and reading his new circulars. His prices are greatly reduced. See advertisement.

BUSINESS CARDS.

The Hammam, a Family Hotel, with Turkish Baths, 81 and 83 Columbia Heights, Brooklyn, N. Y. Three minutes' walk from Fulton Ferry.

Hygienic and Turkish Bath Institute and Hotel, 13 & 15 Laight St., New York. M. L. Holbrook, M.D., Proprietor. Circular free.

Healds' Hygienic Home, Wilmington, Delaware. See advertisement. Send for circular. PERRY and MARY H. HEALD, Physicians.

Kilbourn Hygienic Institute. Quiet Home and Skilful Treatment. Kilbourn City, Wis. Drs. McELROY. Send for circular.

Invalids' Home. A Manual Labor Hygienic Institute. G. V. GIFFORD, M.D., Pro'r, Kakoma, Ind.

The New York Medical College and Hospital for Women, and Homeopathic Dispensary for Women and Children. 213 West 64th Street, New York.

Agents Wanted to sell our "GOOD BOOKS FOR ALL." Special terms given. Now is the time for agents to work. Send for Premium List. Address FOWLER & WELLS CO., 753 Broadway, New York.

Printing and Stereotyping.—EDWARD O. JENKINS' Sons. Book Printing a Specialty. Estimates promptly furnished. 20 North William St., N. Y.

Annie Smith, M.D., 154 E. 49th St., City.

ADVERTISEMENTS.

RATES FOR ADVERTISING.

One Full Page.	\$75.00
One Half Page.	40.00
Less than Half Page. .80 cts. a line, agate measure.	
Second or Third Page of Cover, or First and Last Page of Inset.	\$150.00
Last Inside Page.	150.00
Fourth Page of Cover.	Special Rates.
Business Cards.	75 cts. a line.
Business (Reading Matter).	\$1.00 a line.

Advertisements must be sent in by the first of the month, to be in time for the month following. No extra charge for inserting cuts. No objectionable advertisements accepted at any price.

FOOD BETTER THAN MEDICINE

We provide vital, blood-making foods for all diseases. Sufferers from Dyspepsia, Constipation, Nervous Prostration, and Diabetes, should send for our free pamphlets.

HEALTH FOOD CO.,

74 Fourth Ave., New York,

Brooklyn office—9 Clinton Street.
Boston office—63 Commercial Street.

MOTHERS OF GIRLS should send address on a postal, for a copy of the Circulars to Mothers and Teachers, about our new book "FOR GIRLS." AGENTS WANTED. Address **FOWLER & WELLS Co., Publishers, 753 Broadway, New York.**

JAMES PYLE'S



PEARLINE

THE BEST THING KNOWN FOR

WASHING AND BLEACHING

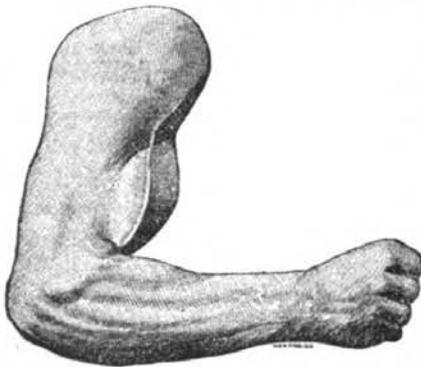
IN HARD OR SOFT, HOT OR COLD WATER.

SAVES LABOR, TIME and SOAP AMAZINGLY, and gives universal satisfaction. No family, rich or poor should be without it.

Sold by all Grocers. **BEWARE** of imitations well designed to mislead. **PEARLINE** is the **ONLY SAFE** labor-saving compound, and always bears the above symbol, and name of **JAMES PYLE, NEW YORK.**

BOOKS FOR WOMEN.

Our Catalogues of Works specially devoted to the interests of Women, including Health and Hygiene, Maternity, Care of Children, Heredity, Cook-Books, Housekeeping, etc., sent free. Address on postal, **FOWLER & WELLS CO., 753 Broadway, New York.**



A new departure in the study of Physical Culture. Send for pamphlet. The patent "Home Exerciser," the most complete and interesting Home Gymnasium ever invented. Fitted equally well for the child, the invalid, or the athlete. Its use is especially calculated to develop weak lungs, strengthen the abdominal organs, overcome dyspepsia, biliousness, constipation, and all congestions in the pelvic organs; and, in short, to strengthen the vital processes, digestion, assimilation, etc., and thus increase the **VITAL FORCE** as well as the muscular power. The "Exerciser" takes up but five inches square of floor room, and can be attached to any window or door casing in the bedroom, the office, or the sitting-room. Accompanied with a book of instructions giving a complete system of Physical Culture, based on new and original principles, together with very important matter as to the care of the health. Fully illustrated. Sent C. O. D. for \$8.00. Address

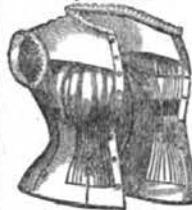
D. L. DOWD, 19 E. 14th Street, New York.

AGENTS WANTED in every town to sell the "Exerciser," and in every city to act as agents, and to open parlors for Physical Culture, based on the system so successful at the "Home School for Physical Culture," No. 19 E. 14th Street.

Send for further information on this point.

6 | **DRESS REFORM** | **6**
E. 14th. | **UNION UNDERGARMENTS.** | **E. 14th.**
Vest and Drawers in One.

EQUIPOISE.



Made in all weights of Merino, Cashmere, and All Wool. Chemillettes, Princess Skirts, *Equipoise*, Emancipation, Dress Reform, and Comfort Waists. *Corded Waists a Specialty.* Shoulder-Brace and Corset combined, Shoulder - Braces, Abdominal Supporters, Obstetric Bandages, Shoulder Stocking Supporters, Sanitary Napkins, etc. Custom work promptly attended to. New Enlarged Illustrated Catalogue sent free.

Mrs. A. FLETCHER,
6 East 14th Street, New York.



GOOD FEET SAVED FROM

PAIN AND DISTORTION, AND BAD ONES RESTORED.

SEND POSTAL FOR FREE PAMPHLET DESCRIBING MY PATENT BOOTS AND SHOES AND PATENT LASTS, WITH PRICE-LIST AND DIRECTIONS FOR SELF-MEASUREMENT.

JOEL McCOMBER,
52 E. 10th St., New York.

HOME SCHOOL

FOR

PHYSICAL CULTURE,

No. 19 E. 14th Street.

A new departure in the study of Physical Culture. Send for pamphlet.

The patent "Home Exerciser," the most complete and interesting Home Gymnasium ever invented. Fitted equally well for the child, the invalid, or the athlete. Its use is especially calculated

to develop weak lungs, strengthen the abdominal organs, overcome dyspepsia, biliousness, constipation, and all congestions in the pelvic organs; and, in short, to strengthen the vital processes, digestion, assimilation, etc., and thus increase the **VITAL FORCE** as well as the muscular power. The "Exerciser" takes up but five inches square of floor room, and can be attached to any window or door casing in the bedroom, the office, or the sitting-room. Accompanied with a book of instructions giving a complete system of Physical Culture, based on new and original principles, together with very important matter as to the care of the health. Fully illustrated. Sent C. O. D. for \$8.00. Address

D. L. DOWD, 19 E. 14th Street, New York.

AGENTS WANTED in every town to sell the "Exerciser," and in every city to act as agents, and to open parlors for Physical Culture, based on the system so successful at the "Home School for Physical Culture," No. 19 E. 14th Street.

Send for further information on this point.

A NEW OFFER.

BOOKS YOU CAN HAVE!!

All Book premium offers with subscriptions to the PHRENOLOGICAL JOURNAL will be withdrawn after November 15th.

As a means of still further extending the circulation of the JOURNAL, we make the following very liberal offer, in payment for a little work.

TO PRESENT SUBSCRIBERS ONLY.

A copy of either of the following valuable and important works will be sent free to any person at the time a subscriber to the JOURNAL, who will send one new name for one year, at regular subscription rates, and to the new subscriber will be given either the new Phrenological Chart, or the Phrenological Bust premium.

The Diseases of Modern Life. A work on the Avoidable Causes of Disease. By Benjamin W. Richardson. 12mo, extra cloth, 520 pages. \$1.50.

The best work on the prevention of disease ever published. Should be read by everybody.

Expression: Its Anatomy and Philosophy. By Sir Charles Bell, K.H. With numerous Notes, and upward of 75 Illustrations. Price, \$1.50.

Wedlock; or, THE RIGHT RELATIONS OF THE SEXES. Disclosing the Laws of Conjugal Selection, and showing Who May, and Who May Not Marry. By Samuel R. Wells, with Portrait of the Author. \$1.50.

A Bachelor's Talks About Married Life and Things Adjacent. By Rev. William Aikman, D.D., author of "Life at Home." 12mo, handsomely bound. \$1.50.

How to Read Character. A New Illustrated Hand-Book of Phrenology and Physiognomy, for Students and Examiners, with a Chart for recording the sizes of the different Organs of the Brain in the Delineation of Character; with upward of 170 Engravings. Cloth, \$1.25.

Reminiscences of Spurzheim and of George Combe. And a Review of the Science of Phrenology from the period of its Discovery by Dr. Gall to the time of the visit of George Combe to the United States in 1840. By Hon. Nahum Capen. With Portraits. 1 vol. 12mo, extra cloth. \$1.50.

Constitution of Man. Considered in Relation to External Objects. The only authorized American edition. With 20 Engravings and a Portrait of the Author. \$1.50.

A copy of each of these works should be found in every library, and we present here a chance to obtain them simply by a little effort.

Remember, for each new name sent with subscription price, for one year, by a present subscriber, we will give one of the above books. If the book is to be sent by mail, we must receive 10 cents for mailing.

TERMS.—The PHRENOLOGICAL JOURNAL is now published at **\$2.00** a year; or **\$2.15** with BUST premium, which is sent by express, at expense of subscriber; or the CHART premium, which is sent by mail, post-paid; Single Numbers, **20 cents**. Amount may be sent by P. O. O., P. N., or Registered Letter. Postage-stamps received. Address

FOWLER & WELLS CO., Publishers, 753 Broadway, New York.

Waterman's "Ideal" Fountain Pen.

Patented February 12, 1884.



No. 1 Pen, with Cap on Top ready for Writing.

This is the simplest as well as the best fountain pen made. The pen-holder consists of four pieces of hard rubber: (1) the Cap, which covers and protects the pen in the pocket; (2) the Handle, which contains the ink; (3) the Point-section, which takes the pen; and (4) the Feed Bar, which holds the pen in its place and carries the ink from the reservoir to the pen, using the same principle (capillary attraction), by a similar construction (a split or fissures), that the pen uses in conducting the ink to the paper, and is equally as certain.

Its three (3) special points of merit are:—

1. It is always ready and writes without shaking.

2. It is clean in the pocket or in use, and can be filled without inking the fingers; and

3. It is simple in construction and has no machinery to be regulated or to get out of order.

It takes the ordinary gold pens without lessening their elasticity or shading qualities.

Your favorite pen can be selected and the character of your handwriting will be preserved.

The act of writing regulates the flow of ink, which is as free as from a dip pen, and much more uniform.

It uses any good ink and holds enough to write continuously from 10 to 25 hours, according to the size.

The pens furnished are made by the best and most widely-known manufacturers in the world, and are of the best quality of gold, and diamond pointed.

The manufacturer has devised a new form of gold pen which is peculiarly elastic and flexible and which we make especially for these holders in three lengths of nibs and four grades of points. The short (or stub) nibs, with fine or medium points, are the best pens ever made for shorthand writing.

Prices:

No. 1, \$3.50; No. 2, \$4.00; No. 3, \$5.00.

Gold-mounted and engraved holders \$1 extra.

An extra pen will be given to any subscriber who will send us the full price for a club of four (4) Ideal pens.

With each pen is given a certificate which warrants the holder for five years, and guarantees it to give satisfaction or the money will be refunded. It also contains a license under the patent, which protects the user from all claims for infringements.

In ordering send a sample of writing and a description of the quality of pen desired; that is, whether the pen should be a long, medium, or short nib, of coarse, medium or fine point, and of hard, medium or soft flexibility.



Sectional View of No. 2 Pen. A, Gold Pen. B, Feed Bar. C, Point-Section. D, Barrel. E, Cap.



Feed Bar.

Testimonials.

The following extracts are copied from a few of the many letters and notices received.

The best Pen in the World.—W. L. Alden, New York Times.

I love it better than any rival.—Rev. Thos. K. Beecher, Elmira, New York.

Waterman's Ideal Fountain Pen is far ahead of any other we have seen.—New York Sun.

It is truly the "Ideal" pen.—J. H. Haslebeck, Prop. and Pub. *Godley's Lady's Book*, Philadelphia, Pa.

I am delighted with your pen, and must speak warm words in its praise.—M. L. Holbrook, Editor *Herald of Health*.

It is the best fountain pen for shorthand, and over fifty of my pupils use it.—J. N. Kimball, Teacher of shorthand, Packard's College, New York.

I have no fault to find with it. I would suggest to Mr. Waterman that he should supply the English market with his pens.—Mr. Henry Labouchere (editor) in London (*Eng.*) *Truth*.

It writes freely, never overflows, and like the Texas pistol is always ready. It is the most perfect labor, time and patience saving tool a literary man could ask for.—Benj. Northrop, Assistant Editor *N. Y. Graphic*.

I have tried various other styles of fountain pens and found them all defective and unclearly. But since I became the owner of a Waterman "Ideal" Fountain Pen, I am happy—no dirty fingers, no leaky holders soiling the pocket. It is always ready without pounding and shaking, and is in every way a perfect fountain pen.—Eugene G. Blackford, Fish Commissioner, New York State.

Next to a full purse, your "Ideal" Fountain Pen is the most useful thing I know of in traveling. For years I have been wearing out Stylographic Pens, and the Stylographic Pens have been wearing out me.

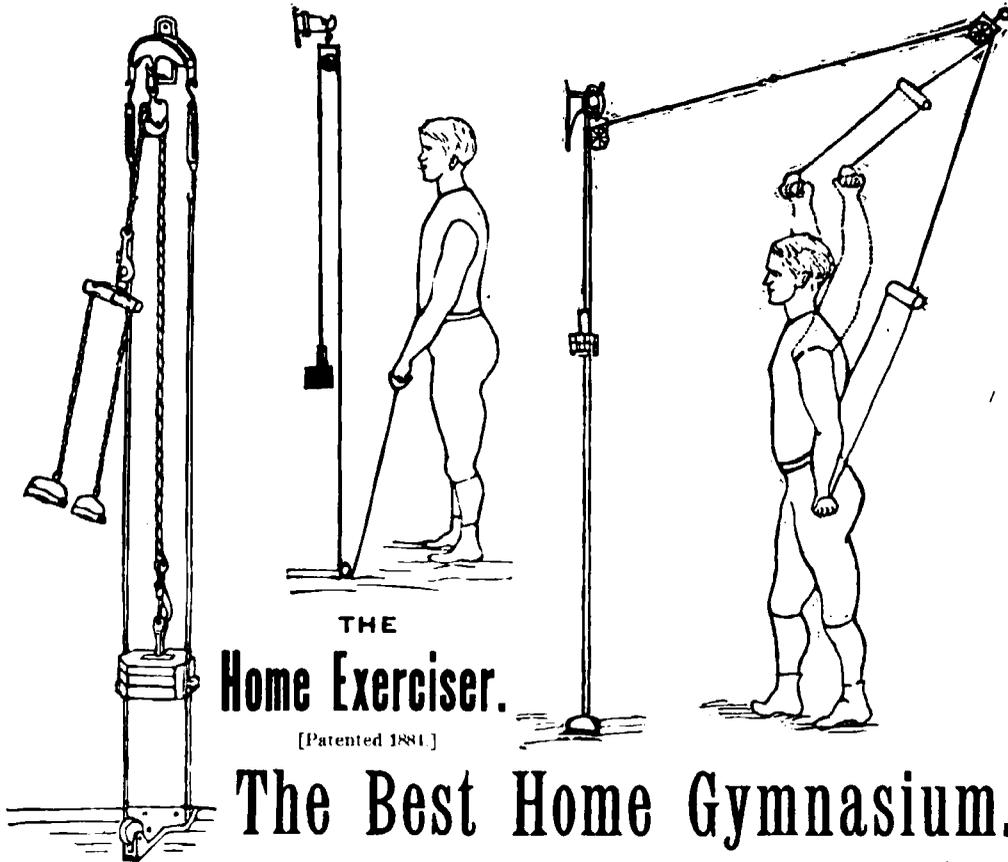
Now, instead of writing with a pin point, I am delighted to find that I can at any time use my own gold pen, and therefore can give force and a distinctive character to my handwriting. You have made a great invention, and one that has evidently "come to stay." A century hence I doubt not that your "Ideal Pen" will still be flourishing, and though "men may come and men may go," like Tennyson's "Brook," it will still "flow on forever."—J. L. Stoddard, the popular lecturer.

Special Premium Offers.

We have thoroughly tested these pens, and being convinced of their very great superiority, we have made special arrangements for offering them as Premiums for subscriptions to THE PHRENOLOGICAL JOURNAL on the following very liberal terms: No. 1, Pen and Holder, price \$3.50, will be given for three subscribers at \$2.00 each; or, \$2.15 with Chart or Bust Premium. No. 2, price \$4.00, for four subscribers. No. 3, price \$5.00, for five subscribers. For one subscriber extra a gold-mounted and engraved holder will be sent. Or we will send the JOURNAL a year as a Premium to any person ordering a pen at above prices. Descriptive circular sent on application. Address all orders to

Fowler & Wells Co., Publishers, 753 Broadway, New York.

"HEALTH IS FIRST WEALTH."—EMERSON.



We wish to call attention to the most complete Home Gymnasium ever devised. It consists of a system of pulleys, and adjustable weights, and is easily attached to window-casing, floor and ceiling, occupying a space of but five inches square of floor room, and when attached to the window-casing of bedroom or office, can be concealed by the curtains, when not in use. It does not injure the room, is easily put in place with screws, and works almost noiselessly, and is simple, durable, and can not get out of order.

It can be almost instantaneously adapted to the use of the professional athlete, the invalid, or child, and is the most interesting form of exercise ever devised, having all the fascination of boat-rowing, coupled with a much greater variety of movements, and its use is not fatiguing.

It can be used to develop every muscle of the body, and is especially beneficial to invalids, and those suffering with nervous prostration. Under its use, consumptives, if not too far advanced, and those with weak lungs, rapidly increase the lung capacity, straighten the form, and broaden and deepen the chest.

There are special movements for strengthening the stomach and abdominal organs, and thus bringing about a "NATURAL CURE" for dyspepsia, biliousness, constipation, pelvic congestions, uterine troubles, etc. Its use is positively curative, and corpulent persons, those suffering from "fat disease," will find it a good thing for producing normal conditions.

Each machine is accompanied by an illustrated book, especially prepared by Prof. D. L. DOWD, giving a complete system of exercises for different parts of the body, and rules for taking the exercises and overcoming special conditions.

Testimonials from well-known ladies and gentlemen, clergymen, editors, physicians, artists, and others who are using the exerciser daily, with a complete and illustrated descriptive circular, will be sent on application.

The price of the machine, with book of instructions, is \$3.00, and we offer it as a premium for only five subscribers to the PHRENOLOGICAL JOURNAL at \$2.00 a year; or for \$10.00 we will send the machine and the PHRENOLOGICAL JOURNAL for three years. We make this specially liberal offer for the purpose of sending them at once into all parts of the country as a means of introduction. Address

FOWLER & WELLS CO., Publishers, 753 Broadway, New York.

A GRAND COMBINATION!!

The Phrenological Journal and Premiums for 1885

AND THE

RURAL NEW-YORKER

WITH FREE SEED DISTRIBUTION.

We have arranged to make a combination offer of the above at favorable rates. We offer the JOURNAL and its great Premiums with the *Rural New-Yorker* with its grand SEED PREMIUMS as below, for \$3.50.

Improved Indian Corn.

FIFTY DIFFERENT CROSSES of the best kinds of Indian Corn, procured from every part of the country, and carefully crossed at the Rural Ex. Grounds, giving greatly improved varieties. Each package will contain about fifty kernels.

Carter's Statagem Pea,

first tested at the Rural Grounds. Every seed warranted true as imported from the introducers in England..

THE BEST INTERMEDIATE PEA KNOWN, as regards productiveness, size of pease, quality and vigor. The vines average two feet high, and may be grown without brushing.

Sorghum Halapense,

the Johnson's Grass of the South. *It has been found perfectly hardy at the Rural Grounds.* It may be cut to the ground in early summer and will still mature a full crop of seeds.

It produces an immense amount of leaves and slender stalks which all live stock relish, while the hardy, fleshy roots take possession of the soil.

The Rural Bicolor Tomato.

The handsomest for market, being yellow about the stem and red otherwise, and of good quality.

The King Humbert Tomato.

Resembling a red pepper in appearance. It is less acid than other kinds, and will be found the best for preserving, being pear-shaped.

The Prince of Wales Pea,

of the first quality. The vines are branching, twenty-four inches high, and the pease remain green longer than those of any other kind. A splendid acquisition.

A New Variety

of the GREEN FLAGEOLET BEAN, imported by the *Rural New-Yorker* from France. *Richer than any Lima.* The beans are green after they are cooked, tender, buttery, and excellent. When well known, this evergreen bean will bring a high price in the markets. Bushes one foot high and astonishingly productive.

The Rural Garden Treasures

for Lady subscribers. A very choice collection of flower seeds, the best of many kinds. A more varied assortment than ever offered before.

A sample copy of the *Rural* and more extended description of the Seed Premiums will be sent you free, by sending your address to *Rural New-Yorker*, 34 Park Row. \$2.00 a year.

A Special Offer.

We have arranged to offer the *Rural* with the above collection of Seeds and the PHRENOLOGICAL JOURNAL a year for \$3.50, with either the Chart or Bust Premium when 15 cents extra is sent. This is a special offer, and no commission or premium can be allowed to agents on the above. Address all subscriptions to

FOWLER & WELLS CO., Publishers,
753 Broadway, New York.

D. LOTHROP & Co.'s NEW PUBLICATIONS.

Ode. Intimations of Immortality, From Recollections of Early Childhood. By WILLIAM WORDSWORTH. With full-page illustrations by Hassam, Garrett, Miss Humphrey, Lungen, Taylor, St. John, Harper, and Smedley. 8vo, cloth, \$3.00; turkey morocco, \$5.00.

One of the choicest gift books of the season.

It is the Christmas Time. Twelve Ideal Christmas Hymns and Poems. With illustrations. The star-song by Herrick, the carols by Wadsworth, George MacDonald, and Miss Mulock; the Herald Angels by Wesley; ever-living hymns by Bishop Heber, Tate, Watts, and the wondrous angel-songs by Montgomery, Drummond, and Keble. Illustrated. Quarto, extra cloth, gilt edges, \$2.50; morocco, \$6.00.

Money in Politics. By Hon. J. K. UPTON, late Assistant Secretary United States Treasury. With an Introduction by Edward Atkinson, who speaks of the book as the most valuable work relating to the history of money in the United States, anywhere to be found. (In press.)

American Explorations in the Ice Zone. By Prof. J. E. NOURSE, U. S. N. New edition, with an Account of the Rescue and Results of the Greeley Expedition. Fully illustrated with Portraits and Maps. Now ready. 8vo, extra cloth, illustrated with circumpolar map in colors, \$3.50; half calf, \$6.

Aesop's Fables Verified. By Mrs. CLARA DOTY BATES, author of "Classics of Babyland," "Child Lore," etc. With 72 full-page illustrations by best artists. \$3.00.

The immortal fables in their new form will impress themselves afresh upon the memory and imagination, and win new favor from young and old.

A Romance in Song. Heine's Lyrical Interlude. Translated by FRANKLIN JOHNSON. Uniform with "Ideal Poems." Illustrated by famous artists. 8vo. \$3.00.

A chapter of autobiography, full of poetic sentiment and graceful imagery.

Edwin Arnold Birthday Book. Edited by his Daughter, Miss L. ARNOLD. With an Autograph Introductory Poem by Edwin Arnold, and Choice Quotations from His Poems for Each Day in the Year. Handsomely illustrated. \$1.00.

The numerous admirers of the author of "Light of Asia" will gladly avail themselves of the opportunity to procure such a souvenir of him.

A Family Flight Around Home. By SUSAN HALE. Handsomely illustrated. 8vo, extra cloth, gilt. \$2.50.

This last edition to the "Family Flights" will prove no less interesting than the previous volume, though the incidents treated are chiefly of our own New England, its customs and peculiarities, out-of-the-way places, and pleasant nooks.

America: Our National Hymn, and other Patriotic Poems. By Rev. S. F. SMITH, D.D. Semi-centennial edition, with illustrations by Famous Artists, Portrait of the Author, and Sketch of his Life. Morocco binding, \$6.00; extra cloth, full gilt, \$8.00.

This peerless hymn, so dear to the hearts of the people, is brought out with all possible beauty and elegance, accompanied by twelve new patriotic poems, not before published.

Christmas Carols. New edition. Exquisitely illustrated by Miss L. B. Humphrey. Quarto, elegant binding. \$2.00.

In this new and enlarged edition of this popular gift-book are new poems by Christiana G. Rossetti, Mrs. A. D. T. Whitney, Elizabeth Stuart Phelps, and the author of "John Halifax, Gentleman."

On the Way to Wonderland. By CLARA DOTY BATES. Profusely illustrated in colors. \$1.25.

Possesses all of the fascination suggested by its title. The children will here meet in new surroundings, such favorites as Bo-Peep, The Sleeping Beauty, Wee Willie Winkie, and others equally attractive. Profusely illustrated in colors, this will be the favorite among holiday quartos.

How They Went to Europe. By MARGARET SIDNEY. 16mo, illustrated. \$1.00.

A charming story, into which is woven much for the instruction as well as the entertainment of the young people.

The Kingdom of Home. Homely Poems for Home Lovers. Selected and arranged by ARTHUR GILMAN. Fully illustrated. 8vo, russet leather binding, seal grain. \$6.00.

Ideal Poems. Twelve Poems, distinguished by the verdict of popular approval as among the finest in the English language, and illustrated with superb full-page pictures by celebrated artists. 8vo, cloth, \$3.00; elegant floral binding, \$3.00; turkey morocco, \$6.00.

This elegant volume is truly an ideal gift-book.

A History of the American People. By ARTHUR GILMAN, M.A. Illustrated. 12mo, cloth, illustrated, \$1.50; 8vo, illustrated, gilt top, \$2.50.

Approved by the press and indorsed by the people, this book has met with such unprecedented favor that it has already passed through several editions. It is invaluable for home, library, and school use.

Wild Flowers, and Where they Grow. By AMANDA B. HARRIS. Sixty Illustrations by Miss L. B. Humphrey. 8vo, extra cloth, gilt edges, \$3.00; turkey morocco, antique gilt edges, \$6.00.

Yule Tide. Illustrated Stories by Favorite American and English Authors, including "The Silver City," by Fred A. Ober, and "Old Caravan Days," by Mary Hartwell Catherwood, with a Proem by Henry Randall Waite. Exquisitely illustrated. Quarto, cloth. \$2.00.

Out of Darkness. By MARY A. LATHBURY. Eight Original Poems of the Inner Life. Illustrated by the Author with Eight Masterly Full-page Drawings and Twenty Exquisite Vignettes, Printed on Heavy Plate Paper. Quarto, elegant floral cover, \$3.00; cloth, gilt edges, \$3.00.

Full Catalogue Free on Application.

D. LOTHROP & CO., Publishers, Boston.

1885.

WIDE AWAKE.

THE MAGAZINE OF TRUE STORIES.

Foremost in pleasure-giving.

Foremost in practical helping.

SERIAL STORIES:

DOWN THE RAVINE. By Charles Egbert Craddock.

No story in young folks' literature for the last ten years has approached this in combined originality, humor and picturesque strength. Illustrations by E. H. Garrett.

HOW THE MIDDIES SET UP SHOP. } By Adeline D. T. Whitney.

A jolly business story, and a first-rate detective story too.

IN LEISLER'S TIMES. - By Eldridge S. Brooks.

A stirring tale, historically true, of the days when New York City was peopled with Knickerbocker Dutch, Indians, wolves and bears. 24 illustrations by Wm. T. Smedley.

THE BUBBLING TRAPOT. By Lizzie W. Champney

The second of the WIDE AWAKE Wonder Stories.

ILLUSTRATED ARTICLES,

of adventure, congenial art and science, and novel industries:

A NEW DEPARTURE FOR GIRLS. (Several Articles.) } By Margaret Sidney.

For those girls who don't do Kensington work, never tried pottery-painting, and haven't an idea of the last new craze in art work, yet who must support themselves.

HOW THE BOOJUMS WENT DOWN THE CRATER. } By Ten of the Boojums

AFTER BUFFALOES. - By Lieut. C. E. S. Wood.

AT PUSSY-CAT PALACE. By Amanda B. Harris.

The history of a XIXth century happy-thought.

A DAHABEEAH WRECK. - By Julian B. Arnold.

A YOUNG NUMISMATIST. - By M. B. Ballard.

THE SCARABÆUS CLUB. - - By F. Chesebro.

LAZY BARBERRY'S AMBITION. By F. H. Throop.

A WINDMILL PILGRIMAGE. - By A. B. Harris.

AMONG THE GYPSIES. - By M. H. Catherwood.

A Group of Four True Western Stories:

WAGON-TIRE CAMP. - - - - By Kate Foote.

The story of the very first discovery of gold in the West.

THE RICH MAN OF THE MOUNTAINS. } - - By Helen Sweet.

A story of the Precious Stone Excitement in the Rockies.

OUR VENTURE. - - - - By Jane Andrews.

A financial story of the early days in San Francisco.

HOW WALTER FOUND HIS FATHER. } By Flora Haynes Apponyi.

A story of the San Francisco hospitals.

A Group of Four True Early New England Stories:

By MARY E. WILKINS, from original records and documents:

I. The Bound Girl. II. Deacon Thomas Wales' Will. III. An Adopted Daughter. IV. The Horse-house Deed.

A Group of Four True Plantation Stories:

By MRS. JESSIE BENTON FREMONT (her own girlhood):

I. Crazy Sally. II. Uncle Primus and Dog Turban. III. The Big English Bull. IV. William-Rufus.

WHEN I WAS A BOY IN CHINA.

A dozen articles, by YAN PHOU LEE, son of a Mandarin.

THE POPSY STORIES.

Stories by "H. H.," about a determined little Western girl.

WONDERFUL CHRISTMASSES OF OLD.

By HEZELIAH BUTTERWORTH. Ten drawings by Lungren.

CHILD-LIFE IN VENICE.

Two articles, with twenty drawings by Joseph Pennell.

THE CHRISTMAS FRONTISPIECE IN COLORS,

which L. FRANK & Co. are reproducing in some twenty colors, from the water-color by F. H. Lungren, will surpass anything ever before attempted in magazine making.

Strong, Practical and Educational Serial Articles,

of twelve chapters each, in the C. Y. F. R. U. Department:

The Children of Westminster Abbey, Rose G. Kingsley; *Souvenirs of My Time*, Jessie Benton Fremont; *The Temperance Teachings of Science*, Prof. A. B. Palmer; *Boys' Heroes*, Edward Everett Hale; *Ways to Do Things*, Various Authors; *Entertainments in Chemistry*, Harry W. Tyler; *The Making of Pictures*, Sarah W. Whitman; *Search Questions in American Literature*, Oscar Fay Adams.

HEROINES OF THE ENGLISH POETS.

Twelve selections from famous poems, each accompanied by a superb full-page illustration. F. H. Lungren is now at work on this remarkable series of drawings:

Chaucer's *Grisilde*; Spenser's *Una*; Herrick's *Cynthia*; Shakespeare's *Cordelia*; Scott's *Ellen*; Wordsworth's *Lucy*; Coleridge's *Genevieve*; Keats' *Madeline*; Burns' *Highland Mary*; Tennyson's *Enid*; Mrs. Browning's *Aurora Leigh*; Robert Browning's *Balaustion*.

Autographs of all Authors

contributing to the Christmas number will be given with their articles. This feature will extend through the year.

WIDE AWAKE is only \$3.00 a year.

D. LOTHROP & COMPANY, Publishers,

Franklin and Hawley Sts., Boston, Mass., U. S. A.

1885

BABYLAND

1885

Edited by the Editors of WIDE AWAKE.

This beautiful daytime and bedtime monthly for the babies and the babies' mammas, along with its usual large-type stories and rhymes and large pictures, has in store

Three Nursery Novelties,

each of which will appear with change of scene and action *twelve times* during the year 1885.

- | | |
|---|--|
| <p>I. LITTLE PEOPLE IN BLACK.
The story of their singular doings.</p> <p>II. A YEAR OF FUN.
Told in rhyme and picture.</p> <p>III. THE CHESSY CHERRYBLOWS.
Their pets and their playfellows.</p> | <p>Novel pictures by
Helen Maria Hinds.</p> <p>Drawings and text by
Margaret Johnson.</p> <p>Funny pictures by
M. J. Sweeney (Box).</p> |
|---|--|

Twelve Pictures in Colors

will adorn the twelve numbers of **BABYLAND** for 1885, more charming than those given during the past year. Only 50 cents a year. Address orders and inquiries to the publishers, D. LOTHROP & CO., Boston.

1885.

OUR LITTLE MEN AND WOMEN

Edited by Mrs. Frances A. Humphrey.

This popular Little Folks' Monthly begins its *sixth year* with the January number of 1885. It is intended for the youngest readers, who are too old for **BABYLAND** and too young for **WIDE AWAKE**, but who want

A Magazine for their very own.

A very interesting feature for the coming year is a Pictorial Series, written by the Editor, entitled

KINGS AND QUEENS AT HOME.

In this chatty series the little folks will learn a good deal about the home life of the most noted kings and queens of the present time, from the boy-king of China up to the white-haired emperor of Germany. There will be many portraits and characteristic pictures of the different countries.

Another Pictorial Series has been prepared about the homes of birds and other house-building creatures :

NESTS AND THEIR BUILDERS. By Mrs. FANNIE A. DEANE.

The popular features of the magazine will be retained : child life in other lands, bright stories, stories of pets, *true stories* most of them, as it is the aim of the Editor to place only such before her little readers.

SEVENTY-FIVE FULL-PAGE PICTURES,

with a crowd of smaller pictures—many of them from famous paintings—will brighten its sunny pages.

CHARMING S. ORY-POEMS

from such standard writers for little folks as Mrs. Clara Doty Bates, Lucretia P. Hale, Joel Benton, Mary B. Dodge, Jane Andrews, Elizabeth P. Allan, Mrs. M. F. Butts, etc., are all ready for the delight of the little enjoyers of musical verse.

Only \$1.00 a year. Address orders and inquiries to the publishers, D. LOTHROP & CO., Boston.

1885

THE PANSY

1885

Edited by Mrs. G. R. Alden ("Pansy").

This home friend of the boys and girls, for week-days and Sundays, will become even more sunny and bright and wise during the coming year. The Editor, "Pansy," has written a new serial :

LITTLE FISHERS: AND THEIR NETS.

A story of the doings of a boy and girl for the good of some human fish, and likely to start others "a-fishing."

KENSINGTON, JUNIOR,

by MARGARET SIDNEY, will follow her notable "home travels in Europe," beginning in the Dec. number.

THE BROWNING BOYS.

Under this title "Pansy" will continue her bright and helpful Golden Text talks.

THIN SLICES OF AMERICAN HISTORY,

by Faye Huntington—the stories of famous events.

SCIENCE

will be touched upon in the rose-color of story by Mrs. Lydia Hoyt Farmer.

Only \$1.00 a year. Address orders and inquiries to the publishers,

D. LOTHROP & CO., Franklin and Hawley Streets, Boston, Mass., U. S. A.

OUR ALPHABETICAL DICTIONARY

will introduce the Pansies to certain great men and women, beginning with the A's.

THE PANSY SOCIETY

is growing, and will have a corner of the paper all to itself.

LETTERS FROM ABROAD.

A "truly" missionary, Mrs. Dr. Methany, will write letters for THE PANSY from Tarsus, Asia Minor.

THE NEW TESTAMENT, IN GREEK AND ENGLISH,

ENTITLED

THE EMPHATIC DIAGLOTT,

Containing the Original Greek Text of THE NEW TESTAMENT, with an interlineary word-for-word English Translation; a new Emphatic Version based on the Interlineary Translation, on the Readings of Eminent Critics, and on the various Readings of the Vatican Manuscript (No. 1,209 in the Vatican Library); together with Illustrative and Explanatory Foot Notes, and a copious Selection of References; to the whole of which is added a valuable Alphabetical Index.

By BENJAMIN WILSON.

One Vol., 12mo, 884 pp. Price, extra cloth, \$4; Lib. binding, \$5.

The publication of the Revised edition of the New Testament has resulted in a largely increased interest in Bible studies, and in this connection we wish to call attention to the peculiar merits and claims of the EMPHATIC DIAGLOTT. We have here a Greek Text acknowledged to be one of the best, which Greek scholars will find of importance, while the unlearned have an almost equal chance with those who are acquainted with the original, by having an interlinear, literal, word-for-word English translation, which will give the readers of the new version an admirable chance for comparing the old and new versions intelligently. On the right hand of each page there is a column containing a special rendering of the translation, including the labors of many talented critics and translators, and in this column the emphatic signs are noted by which the Greek words of emphasis are designated, which the common and the new version of the New Testament both fail to give. The adopting of these signs of emphasis gives a certainty and intensity to the passages where they occur, which can not be had without them. In addition to this there are numerous foot-notes and references, making it on the whole one of the most valuable aids to Bible study yet published. It has met with the cordial approval of many eminent clergymen.

OPINIONS OF THE CLERGY.

The following extracts from letters received by the publishers from some of our most eminent divines will go far to show in what light the new "Emphatic Diaglott" is regarded by the clergy in general:

From THOMAS ARMITAGE, D.D., *Pastor of the Fifth Ave. Baptist Church.*—"GENTLEMEN: I have examined with much care and great interest the specimen sheets sent me of 'The Emphatic Diaglott.' . . . I believe that the book furnishes evidences of purposed faithfulness, more than usual scholarship, and remarkable literary industry. It can not fail to be an important help to those who wish to become better acquainted with the revealed will of God. For these reasons I wish the enterprise of publishing the work great success."

From Rev. JAMES L. HODGE, *Pastor of the First Methodist Baptist Church, N. Y.*—"I have examined these sheets which you design to be a specimen of the work, and have to confess myself much pleased with the arrangement and ability of Mr. Wilson. . . . I can most cordially thank Mr. Wilson for his noble work, and you, gentlemen, for your Christian enterprise in bringing the work before the public. I believe the work will do good, and aid in the better understanding of the New Testament."

From Prof. H. MATTISON, *Pastor of Trinity M. E. Church, Jersey City, N. J.*—"The plan of the work is admirable, and the presence of the Greek text and interlinear version gives every scholar a fair chance to test the version for himself, verse by verse and word for word. I can not but believe that the work will be a valuable acquisition to the Biblical literature of the country."

From A. A. LIVERMORE, D.D., *President of the Theological School, Meadville, Pa.*—"I welcome all efforts intelligently made to popularize the results of criticism, and wish that this little volume might be possessed by every clergyman and student of the Scriptures in the country."

From Rev. C. LARAW, *Pastor of the Halsey St. M. E. Church, Newark, N. J.*—"The Diaglott" has given me great pleasure. The arrangement is a most excellent one, and the new version can not fail to be of great gratification and profit, especially to those unacquainted with the original Greek. The translator has certainly shown great genius in seizing upon the thought of the original, and a happy tact in presenting it."

May be ordered through any Bookseller, and sent by mail, post-paid, on receipt of price. Agents Wanted. Address

From Rev. G. F. WARREN, *Pastor of the Wetherburn St. Church, Lowell, Mass.*—"Am highly gratified with the plan of the translation, and the thorough manner in which he (the author) has done his work. If I mistake not this translation will receive a cordial welcome from the Christian public. It is just what every Christian needs. I congratulate myself and others that such a valuable auxiliary to the study of the Word of God is placed in our hands."

From SAMUEL OSGOOD, D.D., *New York City.*—"I have looked over the specimen of the new and curious edition of the New Testament which you propose publishing, and think that it will be a valuable addition to our Christian literature. It is a work of great labor and careful study, and without being sure of agreeing with the author in all his views, I can commend his book to all lovers of Biblical research."

From JOHN QUINCY ADAMS, D.D., *Pastor of the Anti-Slavery Church, Bleeker Street, N. Y.*—"Having been engaged for the last eight or nine years in giving instruction to young men preparing for the ministry, in the Greek, I feel that your work will be a valuable auxiliary in this direction, as the interlinear translation will greatly aid the beginner. The foot-notes will also be very valuable to those who have not had the opportunity of securing from other sources the facts and explanations which they supply."

From Rev. O. B. FROTHINGHAM, *New York City.*—"The specimen you have sent me of a new edition of the New Testament, has interested me very much. The plan is new, and is better calculated than any I have ever seen to give the public a notion of the way in which the translation was made from the Greek."

Criticisms have also been received from the following distinguished clergymen, who have perused advanced sheets: Dr. S. H. TYNG, New York; Rev. Dr. E. E. ADAMS, Philadelphia; Rev. Dr. D. R. GOODWIN, Philadelphia; Rev. Dr. J. H. A. BOESCHNER, Philadelphia, and many others.

FWLLER & WELLS CO., Publishers, 753 Broadway, N. Y.

OUR TABLE WARE PRESENTS.



JAPANESE PATTERN.

and Table Forks, "A1-8"; Triple Plated Tea Spoons, Butter Knives, Child's Knives and Child's Forks are stamped "A1-6"; Dessert Spoons, "A1-9"; and Table Spoons and Forks, "A1-12." The figures following the "A1" in each indicate the number of ounces of pure silver in the plating of a gross of pieces. We give this bit of information for the benefit of our readers who may wish to know what they are buying. But besides the grade stamp, every article should bear the name of reputable manufacturers, else the grade stamp cannot be relied upon.

Hand Burnished.—Even among standard goods of reputable manufacturers there is an important difference in the finish. In many cases the polishing is done by a rapid machine-buffing process, while every piece bearing Messrs. Holmes, Booth & Hayden's name is thoroughly **Burnished by Hand.** Hence it will be observed that our Table Ware Presents are composed of the best white metal, covered with the thickest plating of **Pure Silver**, which is finished by the best process of **Hand Burnishing.** They are also artistic in pattern, exquisitely engraved, and cannot be distinguished from Solid Silver. With careful usage the triple plate will last a lifetime. All Spoons and Forks and all Knives (except the Solid Steel Plated Knives described below) are uniform in pattern and style of finish. The Knife, Fork and Spoon shown above constitute our **Child's Set**—a very appropriate Birthday or Holiday Present.

Prices for Best Triple Plate.—Child's Set of three pieces (Knife, Fork and Spoon), \$2, postpaid. Tea Spoons, \$6 per dozen; \$3 per set of six; or \$1.50 for three, postpaid. Dessert Spoons, \$10 per dozen; \$5 per set of six; or \$2.50 for three. Table Forks, \$12 per dozen; \$6 per set of six; or \$3 for three. Butter Knives, \$1 each—all postpaid on receipt of the price. Those wishing to secure reliable ware of this kind for Wedding, Birthday or Holiday Presents should order as early as possible.

Solid Steel Plated Knives.—These goods are covered all over with the heaviest plating of pure silver. They are the celebrated Windsor pattern, with Double Bolstered handle. Aside from their beauty and cleanliness, these knives will save their price every year in the labor required to keep the polish



on the ordinary steel blades. Price, \$7 per dozen; \$3.50 per set of six; or \$1.75 for three, postpaid. The very best plated ware is always the most economical in the long run.

Requirements of Civilized Life.—What are termed the "necessaries of life" are very few. Bread-and-water food, salt-sack clothing and a hovel shelter would serve to keep soul and body together; but they would hardly meet the requirements of any considerable class in a civilized community. The fact is that we all demand more or less of the luxuries of life. We have passed beyond the stage of mere existence and require a share of those things which minister to our various capacities for health, usefulness and enjoyment. Indeed it is the right use of these luxuries which best develop in us those attributes which elevate us above the brute creation. Because the brute relishes its food from a wooden trough quite as well as from the best French china, and because it enjoys a mud hovel quite as much as the palatial mansion, and the fact that articles of adornment are but a nuisance to it, are not positive proof that such things should be all the same to us. Nor will it convince many people that monkish existence is, after all, the best mode of life.

Silver Plated Table Ware.—There is, perhaps, no other one article in the market except jewelry that admits of so much deception as plated ware. The country is at present flooded with the cheapest and most worthless goods, which are offered as fine silver plate. First in quality of these goods is the brass body covered with the thinnest possible coating of silver, which after a few weeks' service wears off and leaves the brass exposed. The next grade is also a plating, first of nickel then of silver upon brass, but much heavier, and consequently more serviceable, though when it does wear the dull color of the brass body is prominent. Third, we have a moderately thin plating of silver upon a white metal body. Fourth, a thin plating on a steel body. None of the foregoing can be properly classed as standard goods. Next in quality comes a thicker silver plating on a harder, more substantial and better white metal body; then a double thick plating of silver, and finally we have the heaviest triple plating of pure silver. **This last is the only grade which we offer.**

Holmes, Booth & Hayden's Best.—The goods which we offer must not be confounded with the cheap trash which has been so extensively advertised by some other parties. They are made by Messrs. Holmes, Booth & Hayden, who rank second to no other establishment in the world. They manufacture nothing but **Standard Goods**, and their name is stamped upon every article. For the accommodation of dealers all manufacturers of standard goods have adopted the same distinguishing stamps for the different grades of plate. All articles of the lowest grade are stamped "A1," which would seem to indicate the best plate, while it is really the distinguishing mark for the lowest grade of standard goods. All double plated Tea Spoons, Butter Knives, Child's Knives and Child's Forks are stamped "A1-4"; Dessert Spoons, "A1-6"; Table Spoons

SPECIAL OFFERS.

1st. We offer \$1.00 worth of subscriptions for the PHRENOLOGICAL JOURNAL as a present for every \$2.00 worth of plated ware which shall be ordered from the above list. For instance, any person ordering a Child's Set at \$2.00, will be entitled to six months' subscription to the JOURNAL, which may be mailed to himself or to any one else; \$12.00 for a set of Table Forks also pays for three copies of the JOURNAL one year as a present; etc. We not only offer the very best goods at a low price, but we give every purchaser an opportunity to get back one-half of the money he pays, by asking his friends to subscribe for the JOURNAL, and sending us their addresses and keeping the money which he collects. On receipt of the amount required, the plated ware in every case will be sent by mail or express (all charges prepaid). All goods designed for **Holiday Presents** should be ordered as early as possible.

2d. We offer \$2.00 worth of Silver-Plated Ware as a present to any person for getting two new subscribers for the JOURNAL. The person who shall send us \$4.00 for two subscribers, will therefore be entitled to the Child's Set as a present; and to a set of Tea Spoons for three subscribers, etc., all post-paid. Perfect satisfaction is guaranteed in every case. Address all orders to

FOWLER & WELLS, Publishers, 753 Broadway, N. Y.

THE LIBRARY MICROSCOPE.



A "SECOND SIGHT."—As a second sight, a good microscope reveals a world of wonders for our investigation and admiration. The power of a microscope is determined or measured by its capacity to increase the size of the image of anything under examination. If the object appears to be twice as long and twice as wide as it really is, the instrument is said to magnify two diameters or four times. For instance, if an object be one inch square, and if the microscope makes it appear to be two inches square, the image is thus made to cover four times the surface of the object itself. When the microscope shows an image ten times as long and broad as the object, its magnifying power is said to be ten diameters or 100 times. When its power is fifty diameters, the image is spread over 2,500 times the surface of the object under examination, etc. The Library Microscope which we offer includes several magnifying powers, the greatest of which produces an image about 12,000 times as large as the object examined.

Value of a Microscope.—But the value or usefulness of a microscope depends quite as much upon other things as upon its magnifying power. For instance, the small globe or round lens may have a very high magnifying power, but the indistinctness and imperfections of the image which it produces renders it practically valueless, and those who have bought the tens of thousands of such microscopes which are annually sold, are simply imposed upon in so far as they are made to believe that they are perfect or really desirable instruments. Two or more oval lenses combined are a very great improvement on the single round lens. But a perfect object can be produced only by what are termed achromatic lenses, which are very much more costly.

A Large "Field."—Another important feature of a good microscope is what is termed a large field. In one case the image may be perfect only at a single point or within comparatively small limits, while that of another instrument will be perfect over a much larger area or field. It is also desirable to have the focal distance of the lens as great as possible. For instance, in one case the object may be in focus at a sixteenth of an inch from the lens, while another microscope of equal power will be in focus at several times the distance from the object. It is also desirable to have a microscope so mounted as to be easily adapted to a wide range of circumstances. All these and many other features enter into and modify the value and usefulness of microscopes.

Indispensable.—The time has come when a good microscope should be regarded as one of the indispensables of every intelligent household, as well as of every public and private school. The instrument we here offer is specially adapted for the use of amateurs, and of beginners in the study of entomology, botany and other kindred branches of science. It is also very useful for the investigation of the adulterations in food, the numerous microscopic enemies of the farm, garden and household, and for all scientific investigations except a few of the more minute observations of specialists. It has the unqualified praise of distinguished scientists who commend it to their students; and yet it is so simple and easily managed by the

aid of the instructions accompanying it, that all may readily use it with very great pleasure and profit. One Dollar a Year pays the interest on an investment which secures it; and surely there is no household, school, or individual whom it would not annually benefit to at least that amount. As we have said, it becomes a "second sight," introducing to us the teeming world of microscopic wonders by which we are surrounded.

Camera Lucida.—Accompanying every instrument is what is termed a "camera lucida" attachment which enables even a child to sketch, and preserve in large size, minute objects which are unseen or scarcely visible to the unaided eye. This and other fixtures are packed with the microscope in a handsome walnut case. Price of Microscope, Camera Lucida, and all fixtures, is only \$10, by express.

This Microscope, complete, is given as a Premium for Ten Subscribers to the Phrenological Journal and Science of Health, at \$2.00 a year each, or at \$2.25 each, with a Premium to each Subscriber.

WE LIVE BENEATH OUR PRIVILEGES. To merely eat and drink and lust and passions is an inferior condition of human existence, which all may rise above. And yet as swine, in the midst of a world of wealth and beauty, are pleased to grunt and wallow in the vilest filth, so mankind in many cases seem to chiefly delight in only the most vulgar things pertaining to a brute existence. The fact is we all live far beneath our privileges in this respect. We are surrounded by myriads of ingenious and artistic creations which are calculated to awaken thought, to stimulate reason and to inspire the soul with an appreciation of the good, the true and the beautiful. Yet these myriad creations all about us remain unseen and unheeded in ninety-nine cases in a hundred, because we have never acquired the habits of observation and attention. Having eyes we see not the objects within our vision; or if an object be seen at all, it is not heeded. It fails to awaken thought because the attention lacks cultivation. The neglect of this most important characteristic of an early education is the crying evil of our school system.

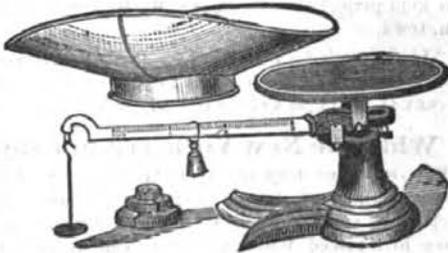


POCKET MAGNIFIER.—As a means of cultivating habits of close observation and attention, there is nothing equal to such an instrument as our Pocket Magnifier, which stimulates curiosity and multiplies our capacity to see small things clearly. For instance, an insect which appears to be without form and no larger than a mite, when examined under our Magnifier, is seen to be exquisitely formed and as delicately colored as any of its larger species. The skin upon a person's face and hands appears to be almost as rough as the hide of a rhinoceros. The different parts of flowers are so much enlarged as to exhibit varied attractions which only infinite skill could have planned and executed. Hence the Magnifier should be reckoned as an indispensable pocket companion of every child, as well as of every grown person. The magnifying powers of this instrument range from three to ten diameters, or from nine to one hundred times the superficial surface. Price only \$1.00, postpaid; or 4 Magnifiers for \$3.00.

We will give one of these as a Premium for Two Subscribers to the Phrenological Journal, or we will send Four Magnifiers and Four Copies of the Journal One Year with Premiums offered to Subscribers, for \$9.00. Address all orders to
FOWLER & WELLS CO., Publishers, 753 Broadway, N. Y.

SOMETHING PRACTICAL.

YOU CAN'T AFFORD TO DO WITHOUT ONE.



The Housekeeper's Scale— $\frac{1}{4}$ oz. to 25 lbs., \$3.50.



Union Scale— $\frac{1}{4}$ oz. to 240 lbs., \$5.00.

In these times of deceptive weights and false measures, a standard scale is indispensable to those who would be sure of getting all they pay for. A handy scale such as those here illustrated is also daily useful in every office, factory, and household; and those who are doing without it are losing, in one way and another, several times its cost every year. These scales are manufactured by the Chicago Scale Company, which has a national reputation for making the best standard goods, and we have arranged to supply them to subscribers to the *PHRENOLOGICAL JOURNAL* on favorable terms.

The Housekeeper's Scale.—Five years ago the writer purchased a scale for weighing small packages of mail matter. The list or catalogue price of it was \$8.00. But being a publisher, a discount of 50 per cent. was allowed, making the price \$4.00 net. Its weighing capacity was from $\frac{1}{4}$ oz. to 4 lbs., while the Housekeeper's Scale is much more convenient and accurately weighs from $\frac{1}{4}$ oz. to 25 lbs. The Housekeeper is made with steel bearings, nicely adjusted. It has a Brass Beam and Tin Scoop. We consider it worth at least twice as much as the \$8.00 4-pounder, and yet the Housekeeper is offered for only \$3.50, boxed and shipped by express. Given as a Premium for four subscribers to the *JOURNAL*, or for \$3.50 we will send the Scales and the *JOURNAL* one year.

The Union Scale weighs from $\frac{1}{4}$ oz. to 240 lbs. Light articles may be weighed in the scoop, while the heavier ones are placed on the platform (10 x 13 $\frac{1}{2}$ inches), which is large enough to weigh a tub of butter, a barrel of potatoes, a quarter of beef, John Jones, Nancy Smith, or any other commodity under 240 lbs. avoirdupois. The upper row of figures on the brass beam is for the scoop, and the lower row for platform. It will last a lifetime, and costs but \$5.00, boxed and shipped by freight or express. Given as a Premium for five subscribers to the *JOURNAL*, or for \$5.00 we will send the Scales and the *JOURNAL* one year. Address all orders to

FOWLER & WELLS CO., Publishers, 753 Broadway, New York.

40,000 "Jewels" Weighing 9 Lbs. for Only \$12.00.

DAY'S COLLAÇON—just published—is an encyclopedia of 40,000 prose quotations from 8,000 authors, upon 2,000 different topics. It comprises beautiful thoughts, choice extracts, and famous sayings of the most eminent writers of all nations from the earliest ages to the present time, together with a comprehensive biographical index of authors and an alphabetical list of subjects treated. It is illustrated with 125 beautiful portraits in steel and wood, especially engraved for this work. The Collacon is the most complete and valuable reference book of the age—a standard work for the scholar, the clergyman, the essayist, the lawyer, the orator, the statesman, the press, and the general reader.

"A collection of rare thoughts is nothing less than a cabinet of intellectual gems."—WILLIAM B. SPRAGUE.

"The multiplicity of writings is becoming so great, that everything must soon be reduced to extracts."—VOLTAIRE.

"Posterity preserves only what will pack into small compass. Jewels are banded down from age to age; less portable valuables disappear."—LORD STANLEY.

Opinions of the Press.—"An elephantine aggregation of prose quotations from eminent authors."—*N. Y. Sun*. "It is truly a rare book, and should find a place on the table of every drawing-room owner and uses the work, the more will he rejoice in its possession."—*Christian World*.

The Collacon is sold only by subscription, except when it is obtained as a premium. Handsomely bound in half morocco, marble edges. The Collacon weighs about 9 pounds. Price, \$12.00, by express. Given as a Premium for twelve subscribers to the *PHRENOLOGICAL JOURNAL*, or we will send the *JOURNAL* three years free to any one sending us the price, \$12.00, for the book. Address

FOWLER & WELLS CO., Publishers, 753 Broadway, New York.



"in the land."—*Sunday Magazine*. "We wish there might be a copy in every family; the money spent in purchasing it will be well invested."—*The Home Companion*. "In this handsome volume we have the imperishable gems of over eight thousand prose writers."—*The Celtic*. "It seems as if all the libraries of the world have been ransacked for these elegant thought-gems."—*Christian Intelligencer*. "It is, indeed, a veritable mine of good things, or rather a treasury, for in it we find the pure gold without the dross."—*N. Y. School Journal*. "It is unquestionably the most compact and perfect book of quotations that has ever been issued from the press."—*Universal Gazette*. "An encyclopedia of prose quotations—wisdom chopped into mincemeat. One ought never to be without the best thoughts of the best writers."—*N. Y. Truth*. "No thinking person can fail to be impressed with its great usefulness, and the longer he

A CHANCE FOR BOYS.

The Celebrated Waterbury Watch and Chain \$3.50.

Is the Waterbury a Toy?—Probably no other invention ever patented has been so persistently maligned and ridiculed and misrepresented as the Waterbury Watch has been by watch-makers and dealers. The reason is obvious. There is not an opportunity to make as much on the sale of a \$3.50 Waterbury as on a \$30 Waltham; and those who purchase the Waterbury can not be induced to invest in the Waltham.

Repaired for a Trifle.—The fight of the dealers against the Waterbury has been so bitter and desperate that in most cases they refuse either to handle or repair it. Hence the manufacturers offer to repair for little or nothing all watches which may be accidentally injured. Also, while it costs from \$1 to \$3 to repair an ordinary watch, the manufacturers charge only from 25 to 50 cents to clean and repair any Waterbury.

Average Sales 1,000 PER DAY.—But in spite of watch-makers' and dealers' efforts to discredit the Waterbury, it is still being sold at the numerous rate of over 1,000 per day the year round. We not only guarantee the watch to give satisfaction, but we present a few samples of the thousands of testimonials received from those who have purchased the Waterbury.

What Purchasers Say about the Waterbury.

"For three years I have carried a Waterbury Watch. It has been wound regularly, and has not varied or been repaired or regulated in that time."—M. M. MERRILL, Louisville, Ky., Aug. 30, 1884.

"I have sold my Waterbury for \$7.50 and now want another."—Wm. B. SCOTT, Wadley, Ga.

"I am perfectly delighted with my Waterbury. It is not only neatly and substantially made, but is a splendid timer. I have run it with a Waltham Watch, full jeweled, chronometer balance, and adjusted to heat and cold and position, and it has not varied ten seconds in ten days."—W. M. HEATH, Edgefield C. H., S.C.

"I have tried my watch for three weeks with \$150 watches and it keeps as good time, or better, than they do."—J. P. LANGMIRA, Como, La.

"Have had a Waterbury Watch for more than a year. It gives perfect satisfaction in every particular, and

has kept perfect time."—CLARK W. HUNTLEY, Charlton, Iowa.

"I have carried a Waterbury for the last three years and always found it to be a good time-keeper."—HARRY G. WALL, 51 Cedar Street, New York.

What the New York Tribune says.

—But some one may say that the character of the above testimonials is exceptional. Well, we do not pretend to say that every Waterbury, any more than every high-priced Waltham watch, can be so accurately regulated as not to vary a minute a year or a second a day, but we do pretend to say, that with very few exceptions, they keep satisfactory time; and in

support of this fact, we quote the following from the New York Tribune: "It is a remarkable fact that out of the first 1,000 watches sent out by the Tribune, only eight have failed to give perfect satisfaction."

Safe Delivery Guaranteed.—The Tribune's "eight unsatisfactory" watches in the 1,000 may have been injured in the mails, so that even these watches may have left the factory in good condition. But whether they did or not, we guarantee to deliver a perfect watch in every case, so that if the first one received should not suit, it may be returned for another that will.

Description.

—The Waterbury which we offer contains all the latest improvements. It is a full plate movement, comprising fifty-seven separate parts. It is a stem winder in half-open face and nickel silver case. The illustration is

two-thirds the actual size. With every watch, we supply a Nickel-Plated Chain and Charm Whistle. The cases are handsomely chased and the Watch and Chain complete are packed in a handsome Satin-Lined Box.

On Time.—If you wish to be on time, carry a Waterbury Watch. If you wish to teach your children habits of promptness, give them a Waterbury. It will save its price over and over again every year in time, anxiety, and vexations, besides the habit of punctuality which it cultivates. Price of Watch and Chain complete is only \$3.50, post-paid, or as a Premium for five subscribers to the PRENNOLOGICAL JOURNAL, at \$2.00 a year, or \$2.15 with Premium Chart or Bust to each subscriber. Address

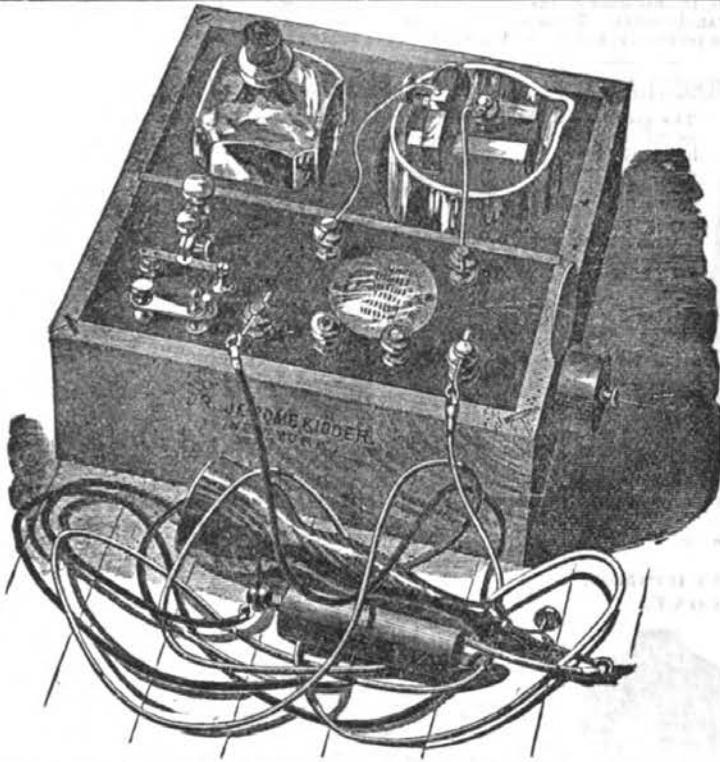


Illustration is Two-thirds Actual Size.

FOWLER & WELLS CO., Publishers,
753 Broadway, New York.

Electro-Magnetic Machines

AS PREMIUMS.



There has been during the past year great progress made in the application of Electricity to the treatment of various forms of disease. The educated sentiment of the public demands from physicians an application of this remedial agent in many cases, which has resulted in a large number of physicians procuring batteries. Some have good ones, and some have those that are indifferent; but all should be furnished with a good instrument. Intelligent men and women can, with proper attention, use the batteries quite as successfully as the average physician, and therefore many persons, outside of the profession, are procuring batteries and works on the subject, and making the application in many cases where it is required.

The demand for these machines has induced us to make special arrangements with the manufacturer for the offering of

Dr. Jerome Kidder's Celebrated Batteries

as Premiums for clubs of subscribers to the *PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH*.

We have already supplied many of these to our subscribers and friends for use, to their entire satisfaction, and we ourselves know them to be thoroughly reliable, and equal to the best made. During his life-time Dr. Jerome Kidder spent much of his time and money in various improvements and in perfecting his machines. For general purposes "THE PHYSICIAN'S AND FAMILY MACHINE," represented in the above cut, and known as No. 4, will answer every purpose. It has three coils, giving six variations of the current, and is operated by one open battery, and can be used for weeks and months without change of fluid. The case contains a bottle, in which the fluid can be poured when not in use. The cut represents the box, with apparatus, without the cover. The price of this, complete, is \$30. It is offered for twenty subscribers to the *JOURNAL* at \$3 each.

We also offer No. 5, which contains five coils, arranged to be used in various combinations, and with hydrostat tip cup battery. Price \$27; and offered for twenty-seven subscribers.

As we have said, any intelligent person, with the aid of the manual which accompanies the Battery, can apply electricity with these machines in very many cases effectively. We would say, do not depend upon your physician, with his little experience, and his old broken-down machine; procure one for yourself. Our liberal offer presents an opportunity to our physicians to secure one of the best machines made, simply by a little well-directed effort. We will also send these machines on receipt of price, as above stated.

White's Manual of Medical Electricity, a very simple text-book on the subject, price \$2.00, is given for two subscribers.

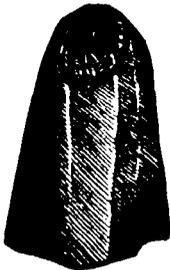
Address **FOWLER & WELLS CO., 763 Broadway, New York.**

N. B.—For fuller descriptions of the Battery, with its uses, together with a complete Price-list, send stamp for Kidder's Catalogue. We can furnish any of the Batteries for a number of subscribers equalling the price in dollars, or on receipt of amount named in Kidder's list.

USEFUL RUBBER GOODS.

We have arranged with the Goodyear India Rubber Curler Company, 729 Broadway, our near neighbors, to offer some of their most useful and celebrated Goods as Premiums for clubs of subscribers to the **PHYSIOLOGICAL JOURNAL**. These articles are new, and are now justly coming into very general use. We have used some of them personally, and know they will bear our recommendation.

LADIES' CIRoulAR.



The great value of these light and thoroughly waterproof articles need hardly be referred to. They are made in the usual style of waterproof cloaks, with hood, and are so light they can be rolled up and carried in the pocket, saving the necessity of being burdened with a heavy cloth cloak. In ordering, give length desired in back. Price, \$4.00. Given for four subscribers, and 20 cents extra for mailing, or will be sent by mail, post-paid, on receipt of price.

GENTS' WATERPROOF OVERCOAT.

Few men know the value of these light and serviceable articles, strong and durable, and weighing only about a pound; can be rolled up and put in pocket; made in various sizes. In ordering, give size around the breast, under the arms. The price of this is \$5.00. Given for five subscribers, and 20 cents for postage, or will be sent by mail, post-paid, on receipt of price.



WATER BOTTLE.



This is an article that should be ready for use in every family. When local hot applications are needed nothing equals it; many times severe pain is relieved by a hot application in this way. The only proper and safe way of warming the bed or feet and hands of elderly persons and invalids. Hot flat-irons and jug should not be used. Price, \$3.00. Given for two subscribers, or sent by mail, post-paid, on receipt of price.

All these are of special utility, and will be found indispensable in every well-regulated family. We offer them as Premiums for the purpose of increasing our list of subscribers; but to place them within the reach of all we will send by mail, post-paid, to any address. A more complete descriptive circular will be sent on application. All orders should be sent to

LADIES' LEGGINGS.

Featherweight (rubber) Leggings for Ladies and Misses. These are water-



proof, strong and durable, affording a protection attained in no other way. Being lined they are warm and absolutely indispensable in wet and muddy weather. Every lady who has to go out daily should own one. In ordering give size around calf, and state whether for ladies or misses. Price, \$1.50. Given for two subscribers, or sent by mail, post-paid, on receipt of price.

MEN'S LEGGINGS.

These will be found useful very many times; on all wet days, and when it is necessary to go in wet grass, etc., being an absolute protection to pants and person. State whether large or small size is wanted.



Price, \$1.50. Given for two subscribers, or sent by mail, post-paid, on receipt of price.

GOODYEAR'S HEALTH LIFT.



This is a very ingenious arrangement, by which ladies and sedentary persons can take daily a variety of exercise, which will be found very beneficial.

Price, \$5.00.

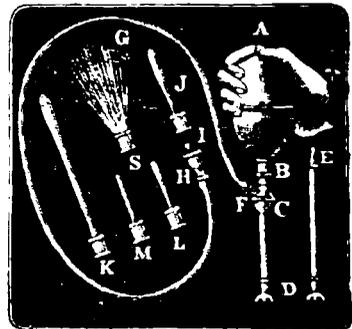
Given for five subscribers, or sent by express on receipt of price.

PUMP PLANT SPRINKLER.



This is the latest improvement in Plant Sprinklers, and is undoubtedly the most convenient apparatus for sprinkling Flowers, Plants, Closets, Floors, etc., ever made. It is the quickest and most effectual in the market, and for flowers it is *simply unique*. It is a miniature pump; the little pail accompanying it will hold a pint, but water can be thrown from a pail or other vessel at the rate of a quart in three minutes, in a fine, even spray. Price, \$1.50. Given for two subscribers, or sent by mail, post-paid, on receipt of price.

WATSON'S SYRINGE.



We have supplied hundreds of our customers with these, the best made.

Put up in handsome cases, each containing four tubes; one for Bowels of Adults, one for Infants, Vaginal Tube, Ear Tube, and Spray Cap, either of which may be used with the Bulb. It is the most convenient Syringe in use, its peculiar form adapting it to the hand in every possible position, and is the latest improvement of the inventor.

A guide-book with each Syringe. Price \$3.00. Given for three subscribers, or sent by mail on receipt of price.

FOWLER & WELLS, Publishers, 753 Broadway, New York.

THE MUSICAL CASKET.



This is the latest form of **Automatic Musical Instruments**, and we have arranged with the Mechanical Organette Co. to offer it to our musical friends, and believe it to be all they claim for it, which is as follows :

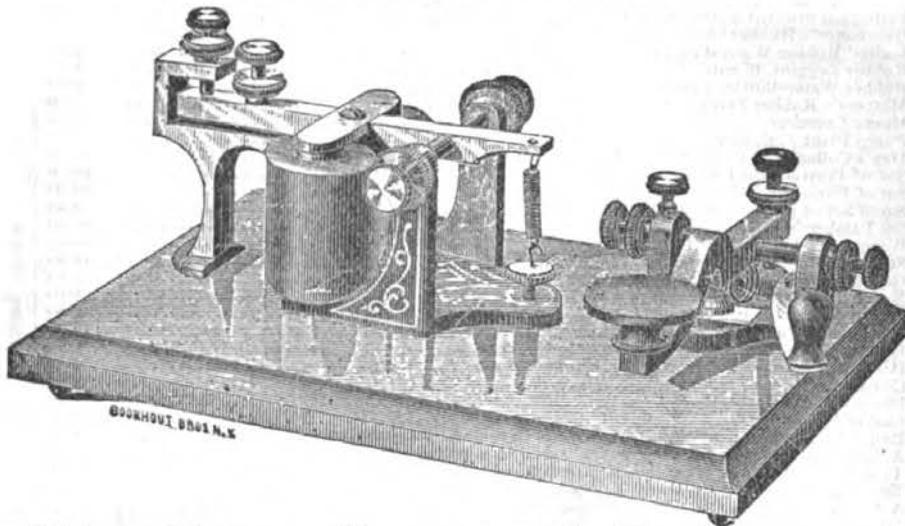
In presenting this new and beautiful Instrument to the attention of the public, we do not hesitate to pronounce it the "Queen of Automatic Instruments." For years we have been aiming to offer the public a Mechanical Musical Instrument that would be simple and perfect to operate ; produce a rich, melodious tone, and capable of *being changed in volume, expression and time*, at the will of the operator. The most desirable point in a Mechanical Instrument, and one which all others have failed to obtain (except in very expensive

styles) is the power of holding a note at the option of the performer, together with as well and expression device, thus giving an opportunity of playing *ad libitum*, and entirely doing away with the monotonous tones, common to instruments of this class. All of these new features are presented in THE MUSICAL CASKET. Like all other instruments of its class, the tune is produced by the perforations in the Paper Stencil, there being positively no limit to the kind or quality of the Music. It will play Hymn Tunes, Popular Airs, Sets of Quadrilles, Polkas, Waltzes, Reels, Hornpipes, Operatic and the most difficult pieces with clearness and accuracy. Simply turning a little crank with one hand feeds the music paper and blows the bellows, while with the other hand the performer can retard, hasten, prolong any note or chord, and give the Music power or delicacy of tone at will, thus combining the precision of a Mechanical Instrument, with the expression and varied style of the performer.

THE MUSIC.—The Music for this Instrument, as in all of its class, is prepared in the form of Paper Stencils, of a very pliable and extremely tough quality of paper, and is warranted with ordinary usage to last for years. A descriptive circular, with list of Music, etc., will be sent to any address. The price, with four tunes, is \$10.00, given as a Premium for ten subscribers to the PHRENOLOGICAL JOURNAL, or for \$10.00 we will send the Casket and the JOURNAL two years. Address all orders to

FOWLER & WELLS CO., Publishers, 753 Broadway, New York.

TELEGRAPHY.



The Home Learners' Instrument.

The constantly increasing demand for Telegraphic operators has wisely led a great many young people to desire to learn to operate. The very complete and compact instrument illustrated above, is manufactured by Messrs. L. G. TILLOTSON & Co., of this city, to meet the wants of home learners. It consists of a complete and perfect Sounder and Key combined, on mahogany base, including Battery, Chemicals, Wire, Book of Instruction, and everything necessary for a **First-Class Telegraph Outfit** for the Student's use, for practice at Home, or for operating all Short Lines of Telegraph.

We have arranged for offering this as a Premium. It will be sent complete for only six subscribers to the **Phrenological Journal**, or will be sent to any address on receipt of price, only \$4.50. Address

FOWLER & WELLS CO., Publishers, 753 Broadway, New York.

1885

PREMIUM LIST.

1885

We present below a List of Articles offered as Premiums for Clubs to THE PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH, and would call special attention to the very liberal offers and conditions given. The articles are all new and useful; the very best of their kind. Besides these, to each Subscriber is given a splendid Premium.

No. of PREM.	Names of Articles offered as Premiums for The Phrenological Journal and Science of Health. <i>An Illustrated and Descriptive Circular will be sent on receipt of stamp.</i>	Price.	No. of Subscribers at \$2
1	The Waterbury Watch and Chain.....	\$3 50	5
2	Gents' Watch, Nickel, Lever, Stem-Winder, Open Face.....	15 00	15
3	Gents' Watch, Silver, Lever, Stem-Winder, Hunting Case.....	22 00	22
4	Gents' Watch, Gold Hunting Case, Stem-Winder.....	50 00	100
5	Boys' or Ladies' Silver Lever, Open Face, Stem Winder.....	18 00	18
6	Ladies' Watch, Eagle Gold Case, Stem-Winder.....	42 00	42
7	One's Silver Plated Set.....	2 00	2
8	One Dozen Silver Plated Tea Spoons.....	6 00	6
9	One-half Dozen Silver Plated Table Spoons.....	6 00	6
10	One Dozen Silver Plated Dessert Spoons.....	10 00	10
11	One Dozen Silver Plated Table Forks.....	12 00	12
12	One Dozen Silver Plated, Solid Steel Knives.....	14 00	14
13	Either a Silver Plated Castor or Butter Dish.....	7 00	7
14	An Elegant Silver Plated Fruit or Cake Basket.....	9 00	9
15	The Housekeepers' Scale.....	3 50	4
16	The Union Scale.....	5 00	5
17	The Avery Sewing Machine.....	50 00	35
18	Boy's Tool Chest, 45 assorted tools.....	5 00	7
19	Gentleman's Tool Chest, 85 assorted tools.....	22 50	30
20	Family Grind-Stone.....	3 00	4
21	Kidder's Electro Magnetic Machine, No. 4.....	20 00	20
22	Kidder's Electro Magnetic Machine, with Tip cup, No. 5.....	27 00	25
23	Household Microscope.....	5 00	6
24	The Library Microscope.....	10 00	10
25	The Home Learners' Telegraphic Instrument.....	4 50	6
26	The Combination Fruit Press.....	3 50	4
27	Waterman's Ideal Fountain Pen, No. 1.....	3 50	3
28	Waterman's Ideal Fountain Pen, No. 3, large size.....	5 00	5
29	Telescopic or Acromatic Spy-Glass.....	6 00	6
30	An Eight-Day Clock, "Victoria".....	6 00	6
31	An Alarm Clock, "Joker" Lever.....	6 00	6
32	The Mechanical Organette "Musical Casket".....	10 00	10
33	The "Holly Scroll Saw".....	3 00	4
34	The "Demas" Scroll Saw and Lathe.....	8 00	10
35	Perfection Student Lamp, Nickel Plated.....	5 00	6
36	Gentlemen's Rubber Over-Coat.....	4 00	4
37	Ladies' Rubber Water-Proof Cloak.....	4 00	4
38	Rubber Leggins, (Gents', Ladies' or Misses').....	1 75	3
39	Rubber Water-Bottle, 2 quarts.....	2 00	3
40	Mattson's Rubber Syringe.....	3 00	3
41	Home Exerciser.....	18 00	18
42	Pump Plant Sprinkler.....	1 00	1
43	Day's Collocon, a Book of Prose Quotations.....	12 00	12
44	Set of Portraits for Lecturers.....	40 00	40
45	Set of Phrenological Specimens.....	40 00	40
46	Small Set of Phrenological Specimens.....	10 00	10
47	Set Lambert's Physiological Plates.....	10 00	10
48	Worcester's Unabridged Dictionary.....	10 00	12
49	Student's Set of Phrenological Works, with Bust.....	10 00	8
50	Geo. Combe's Works. Uniform edition, 4 vols.....	5 00	4
51	New Physiognomy; or, Signs of Character.....	5 00	4
52	The Hydropathic Encyclopedia, by R. T. Trall, M. D.....	4 00	4
53	The Family Physician. By Joel Shew, M. D.....	3 00	3
54	Health in the Household; or, Hygienic Cookery.....	2 00	3
55	History of Woman Suffrage, either volume, cloth.....	5 00	5
56	Cowan's Science of a New Life.....	3 00	3
57	Phrenological Busts, Large.....	1 00	2
58	Cast of Human Brain.....	1 00	2
59	Emphatic Diaglott; or, New Testament in Greek and English.....	4 00	4
60	A Set Science of Health, Four Years, bound in muslin.....	12 00	9
61	THE PHRENOLOGICAL JOURNAL, New Series, 14 years, bound.....	48 00	30
62	THE PHRENOLOGICAL JOURNAL, any one year, bound.....	4 00	3
63	A Year's Subscription to the PHRENOLOGICAL JOURNAL.....	2 00	3
64	Library of Our Publications, Agent's Selection.....	5 00	4
65	Library of Our Publications, Agent's Selection.....	10 00	7
66	Library of Our Publications, Agent's Selection.....	25 00	15
67	A Full Written Description of Character from Photographs.....	5 00	4
68	A Scholarship in the American Institute of Phrenology.....	100 00	100

Send in names as fast as received, stating they are on premium account, and all will be placed to your credit, and premium sent when the number is complete. Send 10 cents for Specimens, Prospectuses, Blanks, etc., used in canvassing. Names may be sent from different post-offices if desired. Remit P. O. Orders, or in Registered Letters. Stamps received. Address

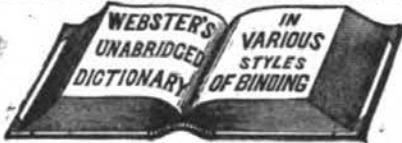
FOWLER & WELLS CO., Publishers, 753 Broadway, N. Y.

The Sun

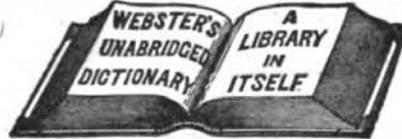
More people than read any other American newspaper look to **THE SUN** every morning for the news of this town, the country and the world. Its Daily, Weekly and Sunday editions form the best obtainable history of all that is interesting in contemporary events. It wastes no words, it evades no duty. It sacrifices no convictions to temporary expediency or partisan demands, and it maintains, and will continue to maintain, its unwavering loyalty to true Weekly, \$1 a year. Address, **I. W. ENGLAND,**

Democratic principles. That, as we understand the matter, is the sort of newspaper which sensible men and women of all shades of opinion want to read. They will find **THE SUN** for the coming year a better newspaper than ever before. The rates, post-paid, for our several editions, are as follows: Daily, **50 cts.** a month, **\$6** a year; with Sunday edition, **\$7.** Sundays, **\$1** a year. **Publisher, "The Sun," New York City.**

BEST HOLIDAY GIFT



A VALUABLE GIFT.



A WELCOME GIFT.



Now supplied, at a small additional cost, with **DENISON'S**

PATENT REFERENCE INDEX.

The latest edition has **3000** more Words in its vocabulary than are found in any other Am. Dict'y and nearly **3** times the number of Engravings. **G. & C. MERRIAM & CO.,** Pub'rs, Springfield, Mass.

BOOKS on BUILDING, PAINTING,

Decorating, etc. Send 10 cents for 100-page Illustrated Catalogue (just published).

WM. T. COMSTOCK, 6 Astor Place, New York.

ACTING PLAYS

and Home Entertainments, Scenery, Wigs, Make-up Articles and everything else needed in getting up Private Theatricals and Exhibitions. **CATALOGUES FREE.** Address, **HAROLD ROORBACH,** 9 Murray St., New York.

SHORTHAND Writing thoroughly taught situations procured for pupils when competent. Send for circular. **W. G. CHAFFEE,** Oswego, N. Y.

CUT THIS OUT 10c. (silver) and receive by return mail **100 SONGS,** no two alike. **H. J. WEHMAN,** 50 Chatham St., New York.

GOOD LUCK Cards—Send **6c.** and receive a set with an illustrated book of tricks and novelties. **CHAS. FARRELL,** 152 West 28th Street, New York.

BIRCHS WILL WIND **KEY** **AND NOT WEAR OUT** by watchmakers. By mail **25c.** Circulars free. **J. S. BIRCH & Co.,** 38 Dey St., N. Y.

BARNES'



Patent Foot and Steam Power Machinery. Complete outfits for Actual Workshop Business, Lathes for Wood or Metal. Circular Saws, Scroll Saws, Formers, Mortisers, Tenoners, etc., etc. Machines on trial if desired. Descriptive Catalogue and Price List Free.

W. F. & JOHN BARNES, 254 Ruby Street, Rockford, Ill.

BEST WORK **C.C. BRIGGS & CO**
BRIGGS' PIANOS
BOSTON MASS **FINEST TONE**

DO YOU WANT A DOG?
 If so, send for **DOG BUYERS' GUIDE**, containing colored plates, 100 engravings of different breeds, prices they are worth, and where to buy them. Also, cuts of Dog Furnishing Goods of all kinds. Directions for Training Dogs and Breeding Ferrets. Mailed for 15 cts.
ASSOCIATED FANCIERS, 237 B. 9th St. Philad'a.

IF YOU WANT
 "The most popular and satisfactory Corset as regards Health, Comfort, and Elegance of Form," be sure and get
MADAME FOY'S
IMPROVED
Corset and Skirt Supporter.
 It is particularly adapted to the present style of dress. For sale by all leading dealers. Price by mail, \$1.30.

FOY, HARMON & CO., New Haven, Conn.
100 Scrap-Book Pictures, 10c.; 100 Transfer Pictures, 10c.; 20 Gem Chromos, 20c.; or the lot for **25c.** Name this Magazine. **H. E. SLAYTON,** Montpelier, Vt.

FORT EDWARD COLLEGIATE INSTITUTE.—New buildings, steam heated. Finest boarding seminary in State. New catalogue giving reduced rates. Winter term Dec. 15th. Institute, Fort Edward, N. Y.

Just Published in London and New York.

THREE VISITS TO AMERICA.

By EMILY FAITHFULL. One large 12mo volume, 400 pp., extra cloth. \$1.50.

The most interesting and attractive work published about America, our people, institutions, etc. The author is well known as a keen, critical observer, and this work is unlike all other books of travel, and rather a record of her observation of our people, institutions, etc., than an account of the country. To show something of the nature of the work, we copy from the author's Preface:

"I do not pretend to offer any new information about a country respecting which so much has been already written by abler pens than mine, but this addition to the international literature of the day may still perhaps prove acceptable, as 'the point of view' taken differs from that of the ordinary traveller.

"Throughout my three visits I had one object specially before me, namely, to supplement the experience gained during twenty years of practical work in England, in regard to the changed position of women in the nineteenth century, by ascertaining how America is trying to solve the most delicate and difficult problem presented by modern civilization. In the hope that the information thus obtained may prove useful, I venture to offer this volume to the English and American public, and I sincerely trust that no comments in these pages, upon political matters or social customs, will prove offensive to a country which extended to me such generous hospitality, and for which I entertain a profound and affectionate respect."

During Miss Faithfull's last visit to this country we arranged with her, by advance payment, to become the American publishers of her new work, which is now issued simultaneously here and in London.

For sale by booksellers, or will be sent by mail, post-paid, on receipt of price, \$1.50.

READY NOVEMBER 15th.

THE

CHILDREN OF THE BIBLE.

BY FANNY L. ARMSTRONG.

WITH AN INTRODUCTION BY

FRANCES E. WILLARD, PRES. N. W. C. T. U.

275 pp., 12mo, extra cloth, - - \$1.00.

In this volume the story of each child of the Bible is told by itself so graphically, that it almost seems entirely new, and none could be more interesting than they. Children and adults will read these stories with interest and with profit.

Miss Willard's testimony in favor of the book and the author is very strong, as is also the recommendations by large numbers of Sunday-school workers in all denominations. We can show something of the scope of the work by publishing the list of subjects treated as shown in the

TABLE OF CONTENTS.

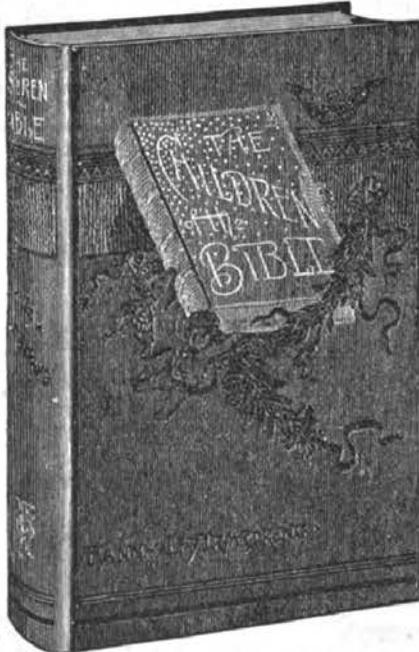
Ishmael; Isaac; Esau and Jacob; Joseph; Miriam; Moses; Nameless; Samuel; David; An Obedient Boy; Only a Baby; A Baby's Narrow Escape; Me-phib-o-sheth; Abijah; The Widow's Son; Irreverence Punished; The Shunammite's Son; The Little Tug-Boat; Joash; Uzziah, the Leper; Josiah; Daniel; The Infant Jesus; The Child Jesus; The Boy Jesus; The Daughter of Jairus; The Lunatic Child Healed; Little Children; Rhoda; Timothy.

A Co-Worker with Jesus; An Object-Lesson; Little Children; Rhoda; Timothy.

This book should be in every family, in the hands of all Sunday-school teachers, and in all Sunday-school libraries.

AGENTS WANTED to introduce it. Sent by mail, post-paid, on receipt of price. Address

FOWLER & WELLS CO., Publishers, 753 Broadway, New York.





**DRS. WALTER'S MOUNTAIN PARK,
WERNERSVILLE, NEAR READING, BERKS CO., PA.**

This is one of the most delightfully located health resorts in the whole country. For quality of air, water, and scenery, it has no competitor. The success of its management is everywhere acknowledged. Each year adds to its reputation and its patronage, and invalids from all over the American continent and from Europe are seeking its healing waters. THE SUCCESS OF THE TREATMENT is beyond all question. The appliances consist of the varied forms of Baths, the Swedish Movement Cure, Massage, Electricity, and a careful Dietary, but being administered in a combination and upon principles different from those elsewhere employed, we are enabled to treat successfully, invalids, no matter what the disease, who have failed of benefit, not only from the ordinary medical appliances, but from these same appliances. The principles of administration are new, and we believe true, and the skill of the Drs. Walter is established by the uniformity of the results. Whoever may be seeking rest, recuperation, or recovery of health, would do well to correspond with the Medical Superintendent.

Dr. ROBERT WALTER, Wernersville, Berks Co., Pa.

**Dr. F. Wilson Hurd's Highland Hygeian Home.
THE WESLEY WATER-CURE,
AT DELAWARE WATER GAP.**

Address **EXPERIMENT MILLS P. O., Pa.**

Situated in a most beautiful and healthful locality, no malaria, consumption rare. We receive cases every month in the year. "RECTAL DISEASES" a specialty. Treatment very successful by Dr. Brinkerhoff's new method, with little or no pain or delay from business. No cutting or excision."

80 Treatments, \$15. Ex. Fee and Pres. 1 year, \$5. Board, \$5 per week, at Riverside Sanitarium, Hamilton, Ill. Estab. 13 years. Circulars free.
E. B. RINGLAND, M.D., Proprietor.

Sunny Side Mountain Health Resort.

Open all the year for Patients and Boarders.

**ROBERT P. PRESTON, M.D.,
Wernersville, near Reading, Pa.**

FOR SALE OR RENT. One of the most Popular and Successful Sanitariums in the United States.
Address Drs. P. & M. H. HEALD, Wilmington, Del.

HEALTH HAVEN, A new Reform Settlement.
Send stamp for circulars, to J. WM. LLOYD, Tracy City, Tenn.

TO TEACHERS OF GIRLS.

We wish to call your attention to our new **Special Physiology for Girls,** a supplement to the study of general physiology, specially adapted to girls' schools. Illustrated. Ex. clo., price \$1.00. Examination copy in paper sent to teachers or school boards for 30c. Send for descriptive circular and full catalogue of books. **AGENTS WANTED.**

**FOWLER & WELLS CO., Publishers,
753 Broadway, New Yo**

**WANTED
50,000 More
AGENTS**

For the *crisp, fresh, popular Contributor*, with its *magnificent and unequalled Premiums*. Goes everywhere. One Agent reports "65 subscribers in 3 days;" another, "80 in 3 days;" another, "never less than 15 a day." If you want to reap a *boundless waiting harvest*, send at once for terms of this *unparalleled chance for agents*. JAS. H. EARLE, BOSTON, MASS.

**10,000 Agents, Men and Women,
Wanted** for our New Illustrated Holiday Volume,

POEMS OF HOME AND COUNTRY.

Original Poems of Home, Country, Old Age, Love, etc., etc., and in its beautiful binding and illustration, an ornament and delight to the home. Extra large, 600 pages. *Full-page illustrations*. Fine cloth, gold and black designs, \$2.00. Send for the book and special terms to agents, and begin at once to take the *Holiday orders*. Sample copy with blanks, etc., mailed on receipt of price. JAS. H. EARLE, Boston.



**BEAUTIFUL
STEEL ENGRAVINGS
Of Choice Subjects.**

SENT POST PAID.
FOR FRAMING, 14 x 17 in. 30c. 1 doz. \$2.50 per doz.
FOR PORTFOLIOS, 9 x 12 in. 20c. 1 doz. \$2.50 a doz.
FOR ALBUMS, 5 x 9 inch 10c. 1 doz. \$1.00 per doz.
 Sample and Catalogue, 10c.
THE STEEL PLATES from which the smallest of these Engravings are printed cost \$1.00 each, and are all choice works of Art. Satisfaction guaranteed. Send Postal Note or order to ENGRAVING PUBLISHING CO., 10, N. Box 1. I., Phila. Pa.



A PRESENT
 to be worth anything must give pleasure to the one who receives it; nothing you can give a son, or a friend, will please him so much as a good Shot Gun or Rifle. We GUARANTEE all our goods, and our prices are bottom. Send your address on postal card for our large 10c. catalogue, full of fine engravings, mailed free. Everything in the Gun line. Watches, Cutlery, etc. J. A. Ross & Co., Successors to G. W. Turner & Ross, 16 and 17 Dock Square, Boston, Mass. 637 Please mention this paper.



MALE DRY GOODS AND NOTIONS, GLOVES, HOSIERY, NECKWEAR, TOYS, NOVELTIES, Useful Articles, etc., at one half price. Upwards of ten thousand dollars' worth of new and fashionable goods just purchased at auction sales in this city, now offered by us for fifty cents on the dollar. Large illustrated and descriptive catalogue, with prices, mailed free. Send for one before purchasing your Holiday presents. Address Eureka T. & N. Co., Box 1148, 87 Warren Street, New York.



3 MONTHS FREE. ON TRIAL.
The Matrimonial Review.
 Send us 10 cts. in Silver to pay postage, etc., and we will send you The Matrimonial Review 3 months free. Each number has 20 pages of solid and interesting reading matter on the standpoint of Matrimonial and Social Reform, the only one of its kind. Address M. S. WEBER, Pub., Farmersville, Pa.

EVERY intelligent person that believes in the cause of MATRIMONIAL AND SOCIAL REFORM, should send for a trial-trip of this magazine.

SHORTHAND.
 All books on Phonography are sold by FOWLER & WELLS Co., Publishers, 753 Broadway, New York.

Holiday Library for Young Men and Boys.

The most helpful set of books of the century for young men and boys.

Tact, Push, and Principle.

By Wm. M. Thayer, author of "Log Cabin to White House." This fascinating and inspiring book for all who have any desire to make the most of themselves and their opportunities, illustrates and enforces well-nigh every possible point and topic that has to do with success in building character and prosperity.

- "It is an admirable book for everybody. There is not a dull page in it."—*Western Recorder* (Louisville).
- "Is a presentation of the conditions of all desirable success in life."—*Christian Leader* (Boston).
- "A powerful book."—*Journal and Messenger*.
- "Full of sound common sense."—*Congregationalist*.

** Each issued in elegant 12mo, silk cloth, gold and black, price, \$2.00. Either volume, \$1.00. Mailed, post-paid, on receipt of price.

JAMES H. EARLE, Publisher, Boston.



BOOK OF CAGE BIRDS, 250 pages, 150 illustrations, beautiful colored plate. Treatment and breeding of all kinds cage birds, for pleasure AND PROFIT. Diseases and their cure. How to build and stock an Aviary. All about Parrots. Prices of all kinds birds, cages, etc. Mailed for 15 cents.
ASSOCIATED FANCIERS, 237 So. Eighth Street, Philadelphia.

PORTABLE PRINTING PRESSES, Hand-carrying, self-inking, and ready, from 75 cents up. Price-list of type, set, above sent. Sample package of paper, envelopes, and cards, ten cents each. Circulate sent free. Instruction Book, 25 cents. Address Joseph Watson, 19 Murray St. New York.

A MAGIC LANTERN ELECTRIC ENGINE MUSICAL BOX OF STEAM ENGINE
FREE
 For particulars how to SECURE ONE and Mammoth Catalogue of Magic Lanterns and Organettes, all latest styles, also Wonderful Novelties, Address HARBACH ORGAN COMPANY, Philadelphia, Pa. Magic Lanterns Wanted.

PERFORATE YOUR OWN DESIGNS
 Ladies can prepare any original designs, or those from ART books, and perforate 10 at once, for stamping; PEARL'S PATENT PERFORATOR & STAMPING OUTFIT. \$2.00 post-paid; send name of sewing machine you use. One agent in every town. Stamp for catalogue. PEARL ART CO., 23 UNION Sq., N.Y.

THE CHEAPEST AND BEST ENGRAVING FOR ALL ILLUSTRATIVE AND ADVERTISING PURPOSES
PHOTO ENGRAVING CO.
 67 Park Place - NEW YORK

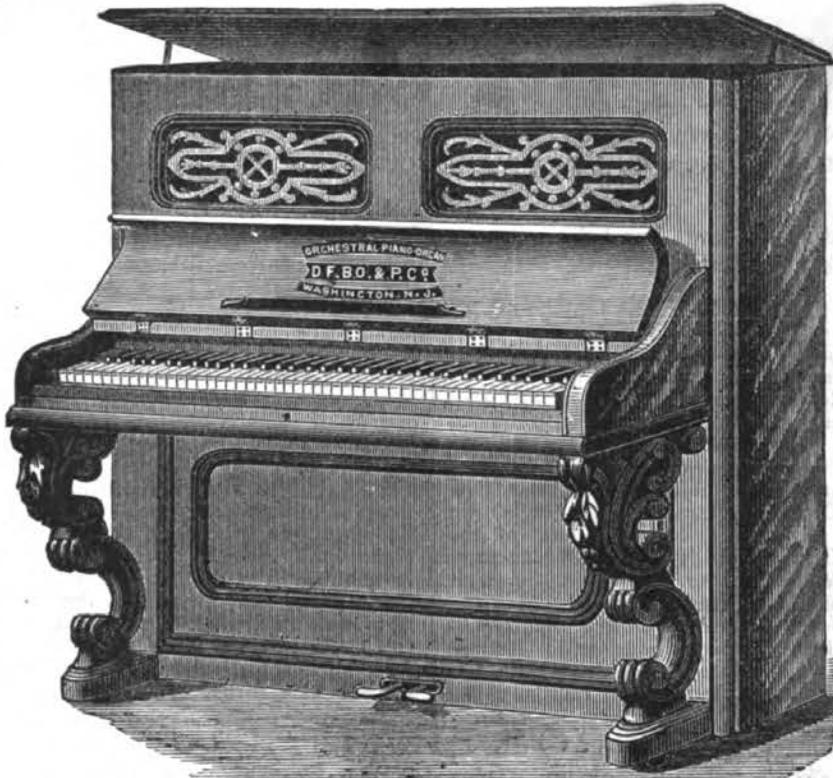
Do You Read French or German? Send for a free specimen copy of the "Foreign Eclectic Magazine," French or German edition. You will find it of special interest to you. Publication office 914 Walnut Street, Philadelphia.

Capital for Working Boys.

By J. E. McConaughy, author of "A Hundred Gold Dollars," etc. This book does for boys under sixteen what "Tact, Push, and Principle" does for all persons over that age. Its author has spent a quarter of a century in study of the needs and helps for boys. The book charms, stimulates, and moulds them to every manly habit that will conduce to a successful life. "A book for every parent who desires to see his son rise to usefulness."—*Indiana Farmer* (Indianapolis). "Will shape character for life."—*Advocate and Guardian*. "Will be read and reread."—*Farm and Fireside*. "Every boy in the world would be the better for reading it."—*American Grocer* (New York).

ORCHESTRAL PIANO-ORGAN.

A NEW INSTRUMENT.



SWEET AND POWERFUL.

SIX OCTAVES.—Size: Height, 4 ft. 5 in.; Length, 4 ft. 8 in.; Depth, 2 ft. 3 in.

THE CASE is a beautiful design of an Upright Piano, exactly like illustration, manufactured of solid Cherry, ebonized and highly polished. **THE MUSIC** is produced upon **TWELVE OCTAVES** of Reeds, (aided by a double Right and Left Coupler), so constructed, tuned and voiced as to imitate as nearly as possible a stringed instrument, operated by a full **SIX OCTAVE** compass of Keys. This instrument excels all others in elasticity of touch, and **THE MOST RAPID MUSIC CAN BE PLAYED** with perfect ease. It responds at once to the touch, combining an easy action with **QUICKNESS OF ARTICULATION**. The tone is smooth, full and rich, not harsh nor ear-piercing. **IT IS THE BEST ACCOMPANIMENT FOR VOCAL MUSIC**, being subordinate to the voice, instead of covering it up, and the tone is pure and flexible. The instrument can be played with perfect ease by ladies, as the pedals (a new invention for which application for patent has been made) are operated without exertion, in a perfectly natural position. Adjustable additional pedals for children are sent with every instrument. Knowing this Piano-Organ will please the public, we are determined to introduce it at once and make the following offer:

\$95

If you will remit \$95.00, within one month from the date of this Magazine, by Draft, Post Office Money Order, or by Express prepaid, we will ship you this instrument, with adjustable stool and book, **IMMEDIATELY ON RECEIPT OF ORDER**. Test trial given and money returned if instrument is not just as represented and perfectly satisfactory. The regular price of this instrument, as compared with other manufacturers, could not be less than \$145. Visit the factory and select, or order by mail and mention this Magazine.

\$145

We recommend this instrument because we know its merits, but we keep in stock and **SHIP PROMPTLY** on receipt of order, all our different styles of Organs for the Parlor, the Chapel, the Church or the Sabbath School. Pianos for \$220 and upwards. Send for Illustrated Catalogue. Visitors are always welcome at this mammoth Factory. **Address or Call upon**

W. P. HADWEN, Manager,

Daniel F. Beatty Organ and Piano Co.,

WASHINGTON, NEW JERSEY, United States of America.

Agents Wanted.—Agents who want to make money fast

should sell our new book, **THE MAN WONDERFUL**, a work which can be sold in every home.

For special terms, address **FOSTER & WELLS CO., 753 Broadway, New York**

Recently Published. New Edition.
PRICE REDUCED.

COMPARATIVE PHYSIOGNOMY;

OR, RESEMBLANCES BETWEEN MEN AND ANIMALS. By JAMES W. REDFIELD.
Illustrated. New Edition. A large octavo vol. Price reduced to \$2.50.

This work, the only one devoted to the subject, is now republished to meet a demand that has been growing for information on the subject. That the work is one of great interest, may be seen from the following

TABLE OF CONTENTS.

Resemblances of Human Beings to Beasts and Birds; Resemblances of Germans to Lions; Resemblances of Prussians to Cats; Resemblances of certain Persons to Eagles and Owls; Resemblances of certain Persons to the Rhinoceros; Resemblances of Negroes to Elephants; Resemblances of certain Persons to Ostriches; Resemblances of certain Persons to Storks; Resemblances of the "Aztec Children" to Mice; Resemblances of certain Persons to the Rat, Hare, Squirrel, and "Possum"; Resemblances of Human Beings to Apes; Resemblances of Negroes to Fishes; Resemblances in general; Resemblances of Laplanders to Reindeers; Resemblances of certain Persons to Herons; Re-

semblances of Arabs to Camels; Resemblances of certain Persons to Vultures; Resemblances of Englishmen to Bulls; Resemblances of Italians to Horses; Resemblances of Turks to Turkeys; Resemblances of Persians to Peacocks; Resemblances of Chinamen to Hogs; Resemblances of Yankees to Bears; Resemblances of Russians to Geese; Resemblances of Hindus to Swans; Resemblances of Frenchmen to Frogs and Alligators; Resemblances of Irishmen to Dogs; Resemblances of certain Persons to Pigeons, and of Spaniards to Cocks; Resemblances of Jews to Goats; Resemblances of Greeks to Sheep; Resemblances of certain Persons to Parrots and Mocking Birds.

PORTRAITS.

In addition to the many illustrations of Animals and Birds, the portraits of the following distinguished Persons are used:

Vitellius, Emperor of Rome; Thomas Wilson D.D., LL.D.; Osceola, the Seminole Chief; Jenny Lind; De Witt Clinton; William VI., Duke of Van Beyeren; Lyman Beecher, D.D.; John Jacob Astor; Andrew Jackson; Madame Trollope; Zumalacarrregui, the Carlist Chief; Fernando Cortez; Frederick the Great; Maximilian I.; A. Court de Gebelin; Eleanora of Austria; La Roncière; John Reeves, Esq.; Sir William Curtis, Bart. and M.P.; Thomas Wood, the abstemious Miller; George Canning, M.P.; Adam Walker; Captain Cook; Maximo, the Aztec; Suraj-u-Dowlah, the Hindu Nabob; Sir Henry Clinton; Anne of Cleves; Joshua Makoniane; Alexander Aubert, Esq., F.R.S.; Dorothy Pentreath, of Mousehole, in Cornwall, the last Person who could converse in the Cornish Language; William Charles Henry, Prince of Holland; Painter of Flowers; Condorcet; John Howard; Marat; Harriet Martineau; David Hume; Edmund Burke; Earl of Wick-

low; Henry VIII. of England; Cardinal Wolsey; Charles Caspar Siebold, Surgeon; Ferdinand II., King of Naples; Mea Matuiani; Washington Allston; Swedenborg; L. Maria Bassi; Vittoria Colonna; Melancthon; Ram-mohun Roy; Edward VI.; Sir Isaac Newton; Abdul-Medjid, Sultan of Turkey; Patrick Russell, M.D., F.R.A.; Abbas-Mirza, Shah of Persia; Francis Joseph, Emperor of Austria; Erasmus; Joe Smith, the Mormon Prophet; Meta-Koosega, a Chippewa Chief; Daniel Webster; General Anthony Wayne; Paul, Emperor of Russia; Emperor Alexander; Grand-Duke Constantine; John Cooke Van Exeter; Louis XVI. of France; Ledru Rol-lin; Louis Napoleon; Lewis Cass; Laurence Sterne; Fénelon; Ben Jonson; Francisco Goya, Painter; Sforza; Johannus Josephus Guillelmus Brutè; Kossuth; Alexander the Great; Plato; Oberlin; Kalergi, the Greek Patriot; Paul Jove; Duke of Devonshire; Lavater; Abby Kelly Foster.

The work is printed on fine heavy paper, bound in extra cloth. Price, \$2.50. Agents will find this a splendid work to canvass for. Special terms sent on application. The work will be sent by mail, post-paid, on receipt of price Address

FOWLER & WELLS CO., Publishers, 753 Broadway, N. Y.

BOOKS FOR WOMEN.

Men read books relating to their affairs, to themselves, and to subjects in which they are specially interested to a far greater extent than most women do. Women should read more, and so become better informed, and in this way add to their health, happiness, and usefulness. Below will be found a list of works specially recommended to women, and among them are books which should be read by every woman.

For Mothers and Daughters.

A Manual of Hygiene for Women and the Household. By Mrs. E. G. Cook, M.D. Illustrated. Extra cloth, \$1.50.

This is the latest, and in many respects the best work yet published for women, and one which all should read. It is written from a wide experience extending over a quarter of a century of active practice.

For Girls.

A Special Physiology; or, Supplement to the Study of General Physiology. Fifth edition, revised. By Mrs. E. R. Shepherd. \$1.00.

This is a work on the special physiology of girls and women, containing that which, for proper reasons, must be omitted altogether from all of the general works on physiology and hygiene. We desire to call the attention of every mother of a girl to this work, in the belief that she will approve of it, and see that it is placed in the hands of her daughter for perusal. A special circular to mothers and teachers will be sent on application.

Health in the Household;

Or, Hygienic Cookery. By Susanna W. Dodds, M.D. 12mo, 600 pages, extra cloth or oil-cloth binding, \$2.00.

Undoubtedly the most complete and extensive work on the subject of the healthful preparation of food ever published. The author writes from a large experience, and is thoroughly competent for the work. Handsomely bound in extra cloth or in oil-cloth binding. Agents can do well with it.

The Mother's Hygienic Hand-Book

For the Normal Development and Training of Women and Children, and the Treatment of their Diseases with Hygienic Agencies. By R. T. Trall, M.D. Cloth, \$1.00.

The great experience and ability of the author enables him to give just that practical advice which mothers need so often all through their lives, and this will be found by far the best work on the subject yet published. It covers the whole ground, and, if it be carefully read, will go far towards giving us an "ENLIGHTENED MOTHERHOOD." The work should be read by every wife and every woman who contemplates marriage.

Uterine Diseases and Displacements.

A Practical Treatise on the Various Diseases, Malpositions, and Structural Derangements of the Uterus and its Appendages. By R. T. Trall, M.D. Fifty-three Colored Plates. Cloth, \$5.

This work was prepared for the use of hygienic physicians, and for the use of women who would understand themselves, and how to properly care for their health, and restore it when lost.

Letters to Women on Midwifery and Diseases of Women.

A Descriptive and Practical Work, giving Treatment in Menstruation and its Disorders, Chlorosis, Leucorrhœa, Fluor Albus, Prolapsus Uteri, Hysteria, Spinal Diseases, and other weaknesses of Females, Pregnancy and its Diseases, Abortion, Uterine Hemorrhage, and the General Management of Childbirth, Nursing, etc. \$1.50.

Copies of the above will be sent by mail, post-paid, on receipt of price. Address

FOWLER & WELLS CO., Publishers, 753 Broadway, N. Y.

Children,

Their Hydropathic Management in Health and Disease. A Descriptive and Practical Work, designed as a Guide for Families and Physicians. Illustrated with numerous cases. \$1.50.

Pregnancy and Childbirth,

With Cases showing the remarkable Effects of Water Treatment in Mitigating the Pains and Perils of the Parturient State. 50 cents.

These three works were written by Dr. Shew, and are based on the Water-Cure or Hygienic system.

Management of Infancy,

Physiological and Moral Treatment. By Andrew Combe, M.D. With Notes and a Supplementary Chapter, by John Bell, M.D. \$1.25.

How to Feed the Baby,

To Make Her Healthy and Happy. With Health Hints. By C. E. Page, M.D. Fourth edition, revised and enlarged. Paper, 50 cents; extra cloth, 75 cents.

Dr. Page has devoted much attention to the subject, both in this country and in Europe, noting the condition of children, and then making careful inquiries as to the feeding, etc., and this work is a special record of experience with his own child.

How to Grow Handsome;

Or, Hints toward Physical Perfection, and the Philosophy of Human Beauty, showing how to Acquire and Retain Bodily Symmetry, Health and Vigor, secure Long Life, and Avoid the Infirmities and Deformities of Age. New edition. By D. H. Jacques, M.D. \$1.00.

One of the best works on Physical Culture published. It should have a wide sale, should be read by ladies, and especially mothers, as the suggestions will be found valuable in the care of children.

Hygeian Home Cook-Book;

Or, Healthful and Palatable Food without Condiments. 25 cents; cloth, 50 cents.

A very complete manual of Hygienic recipes. Send for it.

Transmission;

Or, Variations of Character Through the Mother. By Georgiana B. Kirby. 25 cents; cloth, 50 cts.

An important work on Heredity, and especially the influence of the mother on the character of the child.

Maternity;

Or, The Bearing and Nursing of Children, including Female Education and Beauty. By O. S. Fowler. Muslin, \$1.25.

The Parent's Guide;

Or, Human Development through Pre-Natal Influences and Inherited Tendencies. By Mrs. Hester Pendleton. Revised edition. Cloth, \$1.25.

Our Complete Catalogue of Books on Pnenology, Physiognomy, Health, Hygiene, etc., sent on application.

NEW EDITION. NOW READY.

Life at Home;

OR, THE

Family and Its Members.

INCLUDING

Husbands and Wives, Parents, Children, Brothers, Sisters, Employers and Employed, the Altar in the House, etc. By Rev. WM. AIKMAN, D.D. 1 volume, 12mo. Nearly 300 pages, tinted paper, extra muslin, uniform with "Bachelor's Talks." Price \$1.50; extra gilt \$2.00.

It is seldom that a book is published which receives such universal commendation from the press—both religious and secular—as this, as the following brief extracts will indicate.

NOTICES OF THE PRESS.

An admirable book. We would have a copy in every house.—*New York Observer.*

This is a book full of hearty good sense. Every husband who reads it will be a better husband, and every wife will draw from it strength to make home more pleasant.—*Prairie Farmer.*

A beautiful spirit of Christian love and tenderness pervades the whole work, and none, we think, can read it without being better for the perusal.—*New York Times.*

The views of Dr. Aikman are sound and true, clearly stated, and eloquently enforced.—*Philadelphia Age.*

It contains many golden thoughts, and well uttered.—*Presbyterian.*

Dr. Aikman's book is full of sensible suggestions, the general adoption of which would add immensely to the happiness of society and the promotion of all that is noble and good among men.—*Phila. S. S. Times.*

"Life at Home" is an eminently sensible and practicable talk about the family and its relations, and how to keep them pure and pleasant. A sensible and useful book, and one which, we trust, will find many to read, to ponder, and to give heed to its suggestions.—*Brooklyn Union.*

Full of excellent and valuable instruction.—*Express.*

A very thoughtful and excellent practical work.—*The Independent.*

It is well written, and worthy of a wide circulation.—*Herald and Presbyterian.*

A most welcome addition to our Home work. It is a beautifully got-up work, and is full of matter calculated to improve, instruct, and entertain.—*Buffalo Post.*

Every way the book deserves a place in every family, and its reading would do good.—*Christian Instructor.*

No more appropriate or useful gift could be made to a newly married pair, or to a young household. Sent, post-paid, on receipt of price.

FOWLER & WELLS CO., Publishers,
753 Broadway, New York.

NOW READY.

A BACHELOR'S TALKS

ABOUT

MARRIED LIFE

AND

Things Adjacent.

By Rev. WILLIAM AIKMAN, D.D., author of "Life at Home." 12mo, handsomely bound, \$1.50; full gilt, \$2.00.

This work is likely to prove one of the most popular books published on the subject of the home relation in many years. Written from a stand point outside of family life, it is full of sharp, practical suggestions, which will be enjoyed wherever read, and by all classes.

All phases are touched upon; and while we sometimes smile, again we find our eyes growing moist as we read.

To give an idea of the character of the work, we publish the following from the

CONTENTS.

My Brother's Parlor; Homes; A Home not His Heaven; The Newly-Married; After the Honeymoon; A Young Wife's Troubles; The Clouds Gone; Frank Holman's New Home; Mrs. Frank Holman's Housekeeping; Mrs. Holman's Baby; Obedient Babies; In the Place of God; Frank Holman's Family Worship; The Dead Babe; About the Baby Gone; The Inner Shrine; The Inner Shrine Protected; Taking and not Giving; Politeness in the Home; Reproduced Characteristics; Justice to Children; Promises to Children Broken; "A Horse, Sir, is like a Child;" Mr. Frownell's Boys; In the Country with the Boys; On Politeness to the Boys; "If we had only Known;" On Saying "No" to Children; Children's "Blues;" The Spirit's Touch. The First "No!" is the Thing; Bossing it; Questionable Books; The Youngest Boy; Teasing; Sabbath the Workingman's Day; Family Birthdays; The Aged in the House; How Mr. Farwell's Daughter Felt; The Sin Returned; Grandparents; Grandparents on the Battle-Field; Responsibility put on the Inexperienced; Little Courtesies; The Golden Wedding.

We can only say send for it, and take our assurance that you will find it most enjoyable. By mail, post-paid, on receipt of price. Address

FOWLER & WELLS CO., Publishers,
753 Broadway, New York

FOWLER & WELLS CO.'S

1884.

NEW PUBLICATIONS.

1885.

Three Visits to America. By EMILY FAITHFULL. 400 pages. 1 vol. 12mo, extra cloth, \$1.50.

The most interesting and attractive work published about America, our people, institutions, etc. The author is well known as a keen, critical observer, and this is a record of her experience and observations during three somewhat extended tours throughout the country, and is filled with reminiscences of persons, places, etc.

The Man Wonderful in the House Beautiful. An Allegory. Teaching the Principles of Physiology and Hygiene, and the effects of Stimulants and Narcotics. For Home Reading. Also adapted as a Reader for High-Schools, and as a Text-book for Grammar, Intermediate, and District Schools. By CHILTON B. ALLEN, A.M., LL.B., M.D., and MARY A. ALLEN, A.B., M.D. 370 pp., extra cloth, \$1.50.

"The book is more wonderful than a fairy tale, more intensely interesting than a romance, and more replete with valuable truths than any book of the present day."—*Indianapolis Times*.

The Children of the Bible. By FANNY L. ARMSTRONG, with an Introduction by Frances E. Willard, Pres. N. W. C. T. U. Extra cloth. Price, \$1.00.

"An elegantly written book, designed for young people, who will be charmed and benefited by its beautiful sketches and pure, lifelike thoughts. The story of each child of the Bible is told by itself graphically, so that it almost seems entirely new, and none could be more interesting than they. A book for the Home Table, Sunday-school Teachers, and Sunday-school libraries.

The Fallacies in "Progress and Poverty." A Consideration of Henry George's "Progress and Poverty," Henry Dunning Macleod's "Economics," also "The Ethics of Protection and Free Trade," and "The Industrial Problem Considered *a priori*." By WILLIAM HANSON. 12mo, cloth, \$1.00.

This is a bold attack by a clear-headed observer and most candid writer on leading points and arguments made by Mr. Henry George, in his well-known "Progress and Poverty" and "Social Problems," indicating clearly the errors of assumption and reasoning that mar those powerful books.

A Bachelor's Talks About Married Life and Things Adjacent. By Rev. Wm. AIKMAN, D.D., author of "Life at Home." 12mo, extra cloth, \$1.50.

In this new volume Dr. Aikman writes in a pleasant and chatty manner in the form of sketches, noting his observations from a bachelor's stand-point, with many hints and suggestions that will be heartily enjoyed and appreciated. The work should be in the hands of all classes.

Smoking and Drinking. By JAMES PARTON. 12mo, paper, 50 cents; cloth, 75 cents.

This work, when first written, attracted very wide-spread attention among intelligent thinking people. This edition has a new Introduction by the author, and should be widely read by those interested in these subjects, and who is not, for all are affected by them?

Comparative Physiognomy; OR, RESEMBLANCES BETWEEN MEN AND ANIMALS. By J. W. REDFIELD, M.D. Octavo volume, illustrated. Price, \$2.50.

A new edition of what may be deemed a standard work on the subject of physiognomy, carrying it into the field of similarity between man and animals. One may read this book out of mere curiosity, or may look at it from a humorous point of view—so be it; but whether one reads humorously or seriously, he will find suggestions of value.

A Catechism of Phrenology, illustrating the Principles of the Science, by means of short Conversational Questions and Answers, thus adapting it alike to Young and Old. Paper, price 50 cents.

We have here a very valuable little work, presenting the subject in a familiar manner by questions and answers, adapting it for home study, and for the use of teachers who wish to place it in the hands of their scholars for class study.

How to Study Character; OR, THE TRUE BASIS OF THE SCIENCE OF MIND, including a view of Alexander Bain's Criticism of the Phrenological System. By THOMAS A. HYDE. Paper, 50 cents; cloth, 75 cents.

The object of the essay is a comparison of the older metaphysical and the present psychological and experimental methods with the phrenological system.

The Diet Question, giving the Reason Why, from "Health in the Household," by Mrs. S. W. DODDS, M.D. Paper, 25 cents.

All who are interested in the reason why for rules of diet, and all who would eat for health and strength, should read this valuable treatise. It will help you to know how to live.

For sale by booksellers, or sent by mail, post-paid, on receipt of price. Address

FOWLER & WELLS CO., Publishers, 753 Broadway, New York.

PEARS' SOAP

A PERFECTLY PURE SOAP • IT KEEPS THE PORES OPEN. THE COMPLEXION CLEAR. AND THE HANDS AND SKIN SOFT • A VERY DURABLE SOAP •

THE
WORLD
RENOWNED



ENGLISH COMPLEXION SOAP

ESTABLISHED

PEARS' SOAP

FIFTEEN

IN LONDON 100 YEARS, INTERNATIONAL AWARDS

A BRIGHT HEALTHFUL SKIN AND COMPLEXION ENSURED BY USING
PEARS' SOAP.

AS RECOMMENDED BY THE GREATEST ENGLISH AUTHORITY ON THE SKIN,
PROF. SIR ERASMUS WILSON, F. R. S., PRES. OF THE ROYAL COL. OF SURGEONS,
ENGLAND, AND ALL OTHER LEADING AUTHORITIES ON THE SKIN.
COUNTLESS BEAUTEOUS LADIES, INCLUDING MRS. LILLIE LANGTRY, RECOMMEND ITS VIRTUES
AND PREFER PEAR'S SOAP TO ANY OTHER.

The following from the world-renowned Songstress is a sample of thousands of Testimonials:

Testimonial from Madame ADELINA PATTI.

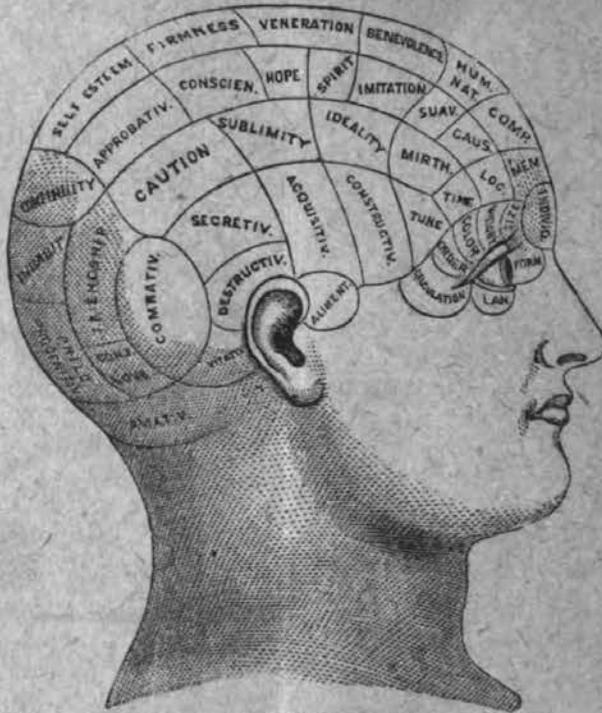
"I HAVE FOUND IT MATCHLESS FOR THE HANDS AND COMPLEXION."
Adelina Patti

PEARS' SOAP IS FOR SALE THROUGHOUT THE CIVILIZED WORLD.

A Choice of Premiums.

THE PHRENOLOGICAL CHART.

A handsome symbolical Head, made from new and special drawings designed for the purpose. The pictorial illustrations show the location of each of the phrenological organs, and their natural language. It will help to locate readily the faculties, and at the same time give a correct idea of their functions. The Head is about twelve ins. wide, handsomely lithographed in colors and on heavy plate paper about 19 x 24 ins., properly mounted, with rings for hanging, or may be framed, and will be very attractive wherever it is seen. Price, \$1.00. Is given to each subscriber, or the Bust Premium.



THE PHRENOLOGICAL BUST.

This bust is made of Plaster of Paris, and so lettered as to show the exact location of each of the Phrenological Organs. The bust is nearly life-size, and very ornamental, deserving a place on the centre-table or mantel, in parlor, office, or study, and until recently has sold for \$2.00. This, with the illustrated key which accompanies each Bust, should be in the hands of all who would know "How to Read Character." It is now offered as a Premium to each yearly subscriber to *The Phrenological Journal*, or we will send the Chart Premium.

THE

PHRENOLOGICAL JOURNAL

Is widely known in America and Europe, having been before the reading world nearly fifty years, and occupying a place in literature exclusively its own, viz., the study of HUMAN NATURE in all its phases, including Phrenology, Physiognomy, Ethnology, Physiology, etc., together with the "SCIENCE OF HEALTH," and no expense will be spared to make it the best publication for general circulation, tending always to make men better physically, mentally, and morally. Parents should read the JOURNAL, that they may better know how to govern and train their children. Young people should read the JOURNAL, that they may make the most of themselves. It has long met with the hearty approval of the press and the people.

N. Y. Tribune says: "Few works will better repay perusal in the family than this rich storehouse of instruction, which never fails to illustrate the practical philosophy of life, with its lively expositions, appropriate anecdotes, and agreeable sketches of distinguished individuals."

N. Y. Times says: "THE PHRENOLOGICAL JOURNAL proves that the increasing years of a periodical is no reason for its lessening its enterprise or for diminishing its abundance of interesting matter. If all magazines increased in merit as steadily as THE PHRENOLOGICAL JOURNAL, they would deserve in time to show equal evidences of popularity."

Christian Union says: "It is well known as a popular storehouse for useful thought. It teaches men to know themselves, and constantly presents matters of the highest interest to intelligent readers, and has the advantage of having always been not only 'up with the times,' but a little in advance. Its popularity shows the power of enterprise and brains."

Sunday-School Times says: "A great amount and variety of useful and instructive matter finds its way into this PHRENOLOGICAL monthly. It is progressive and liberal, in the good sense of those terms—a readable, valuable journal."

TERMS.

The JOURNAL is published monthly at \$2.00 a year, or 20 cents a Number. To each yearly subscriber is given either the BUST or Chart Premium described above. When the Premiums are sent, 15 cents extra must be received with each subscription to pay postage on the JOURNAL and the expense of boxing and packing the Bust, which will be sent by express, or No. 2, a smaller size, or the Chart Premium, will be sent by mail, post-paid.

Send amount in P. O. Orders, P. N., Drafts on New York, or in Registered Letters. Postage-stamps will be received. AGENTS WANTED. Send 10 cents for specimen Number, Premium List, Posters, etc. Address

FOWLER & WELLS CO., Publishers, 753 Broadway, New York.